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**January 1987**

# **Strategies to Increase the Use of Child Safety Seats Among Toddlers**

## **Volume I**

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16. Abstract <p>This project used group depth interviews to investigate parent attitudes toward use and nonuse of child safety seats (CSSs), particularly for toddlers. Parenting habits differentiate toddler-seat users and nonusers. Nonusers abandon CSSs because of toddler misbehavior, inconvenience, their fears, seat size and design problems, displacement by a new sibling, low probability and cost of legal sanction, and perception of seat belts as an acceptable alternative.</p> <p>Participants were asked to react to written descriptions of program concepts to convert CSS nonusers into users. They identified stiffer penalties, e.g., heavy fines, and use of subtle fear arousal as the most promising methods to deal with nonusers. Promotion would be most promising using electronic media and children should be targeted both in school and at home. Less promising concepts are guilt-inducing messages directed to nonusers, comparison of nonuse to child abuse, drunk driving or lack of love, and positive incentives.</p> <p>Recommendations include the following. Increase legal penalties through higher fines and driver's license points. Make penalties credible by strengthening and publicizing enforcement efforts. Investigate and remedy shortcomings in seat design. Document basic quantitative information regarding use of CSS. Provide parents with more information on laws and CSS features. Use promotional messages to address parent emotions in an unthreatening manner. Aim communication at parent nonusers, households where there is a risk of toddler displacement by a newborn child, family and friends of pregnant mothers of toddlers (to encourage CSS gifts for subsequent children), and older toddlers (to counteract image of seat usage being babyish). Efforts must enlist cooperation of manufacturers, governmental officials, educators, and community organizations.</p>			
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## EXECUTIVE SUMMARY

### OBJECTIVES

This project investigated parent attitudes toward use of child safety seats (CSSs), determined motives for CSS use and nonuse, and identified promising strategies for converting current nonusers into users.

One to four year old toddler nonuse was emphasized because of its much greater prevalence and researchability. Observed infant CSS use is over 60%, while CSS use by toddlers is much lower (infant seat nonuse and toddler seat misuse were beyond the limited scope of this study).

### METHODOLOGY

The project assembled a team of CSS expert reviewers after reviewing literature on correlates of CSS use and nonuse, and on strategies for increasing use, researchers interviewed CSS users and nonusers using 15 focus groups in Edison and Cherry Hill, NJ; Baltimore, MD; and Charlotte, NC. Interviews took place during the spring of 1986.

Findings should be viewed as exploratory, not definitive.

Respondents were recruited to meet certain specifications: self-described users or nonusers of CSSs with a child one to nine months old or two to three years old.

The recruiting process does not produce a statistically random sample. Participant self-reports of either CSS or belt use by their children have probably exceeded observed use rates.

## THE INFANT CHILD SAFETY SEAT USER

Infant safety seat use is viewed as "normal," nonuse as socially unacceptable. Infant-seat nonusers were impossible to find using group interview recruiting methods, although observational studies report 20 to 40 percent nonuse. Infant seat use is reported and supported even by toddler-seat nonusers. Perceived protection and infant positioning motivate parents' infant CSS use more than mandatory use laws.

## THE TODDLER-SEAT USER

Parenting habits -- not child behavior -- differentiate toddler-seat users and nonusers. Parents in both categories report toddler resistance to seat use, but users exhibit more tenacity and commitment to keeping children in CSSs and communicate this priority to their children. Among those interviewed, neither income level nor safety orientation (e.g., parental safety belt use) distinguishes toddler-seat users from nonusers.

Motivation for continued use is based on perceived protection offered by seats and their ability to restrain potentially distracting movement by children within the car.

## REASONS FOR ABANDONING TODDLER SEATS

Virtually all interviewed nonusers had used a CSS at some point and abandoned it for one or more reasons.

Toddler misbehavior in CSSs leads many parents to discontinue use. Misbehavior (e.g., tantrums, unbuckling and climbing out of the seat) may be based on actual discomfort, distaste for restraint, demonstration of newly developed motor skills or assertion of independence. Older siblings not using a CSS or infant siblings in a CSS may cause a child to identify a CSS as "babyish" and thus resist it.

Parental discouragement is also a factor in abandoning CSS use. Some parents project their own dislike for CSSs onto their children. The ability of a child to sit up and use a belt outweighs child restraint and protection motivations for

CSS use. The inconvenience of CSS installation and securing children in CSSs (especially in multicar households) contributes to parental fatigue. Parents often describe their children as "looking uncomfortable" in their CSSs, but the validity of this perception is not known.

Parent fears of difficulty in removing a restrained child from a burning or submerged car motivates some CSS nonuse.

Seat size and design problems are cited by many as factors in abandoning use, although parents with newer seats are generally happier with them. Children outgrowing seats before reaching the age at which nonuse is legal and children operating harness releases to exit the CSS are the major concerns; both may be results of improper strap adjustment and other forms of parental misuse of CSSs.

Arrival of a new sibling often displaces a toddler from a convertible seat pressed into service for the infant. CSSs are frequently gifts to parents for a first child, but less often given for subsequent children. Parents in this situation report trading off the extra cost of a new toddler seat against its limited period of usefulness (frequently defined by the age when state law allows discontinuance of toddler seat use).

CSS use law and its enforcement provide little incentive to remain a toddler-seat user. Parents see a low probability of being cited and fined for a CSS violation (particularly if children are restrained in safety belts). Although parental awareness of the amount of the fine for CSS nonuse varies, virtually all perceive the fine to be too low to motivate CSS acquisition; the fine is seen as trivial relative to the cost of a new CSS.

#### USERS OF SAFETY BELTS FOR TODDLERS

CSS use for toddlers (as compared to CSS use for infants) decreases among those interviewed because safety belts are viewed as an acceptable alternative. Safety belt use permits participants to view themselves as responsible and safety-concerned, even though many concede that safety belts provide less protection than CSSs.

Nonuser parents typically report abortive attempts to use toddler seats, defeated by children's noncooperation or escape from the seat. Some parents, in effect, trade off less effective protection acceptable to the child for more effective protection resisted by the child.

#### REACTIONS TO PROGRAMMATIC CONCEPTS

Participants were asked to react to written descriptions of four types of program concepts designed to convert CSS nonusers into users:

- Negative reinforcement (introducing stiffer penalties for nonusers),
- Fear (highlighting the injuries which could result from nonuse),
- Guilt (suggesting that nonusers are not acting as responsible, loving parents), and
- Positive reinforcement (rewarding the parents and/or the children for using CSSs).

Nonusers of toddler seats who restrain their children with safety belts tend to deny the applicability of most concepts to themselves. Most say they will only begin to consider messages when it becomes clear that toddlers are unsafe in safety belts.

Users and nonusers agree that concepts which threaten stiffer penalties for breaking the law have the greatest potential for motivating CSS nonusers.

- Heavy fines (e.g., \$60) or threats to car insurance rates are dreaded most and are therefore most promising for converting nonusers.
- Points or license suspensions (suggested as a penalty for repeat violators in one concept) are more fearsome than fines for some, in part because they imply higher insurance rates.

Concepts which evoke fear through vivid imagery are viewed as likely to change behavior. Subtle fear arousal appears to work best; parents reacted strongly to a concept testimonial by a parent describing her continuing guilt as she cares for a brain-damaged child after a collision in which the child was unrestrained. Another testimonial, describing an accident in which parent and child are unharmed because of restraint use, also affected parents strongly, although it failed to communicate any advantage of CSSs over safety belts.

Concepts aimed directly at CSS nonusers that potentially seek to evoke guilt "by association" are ineffective in motivating toddler seat use, because nonuser parents find ways to make media messages not applicable to themselves. (Whether or not such associations could be effective if they were targeted indirectly through family, friends and society remains to be tested.)

Comparing CSS nonuse to child abuse is rejected by nonusers as offensive and by users as too abrasive to motivate nonusers. Reactions reflect the abhorrence with which child abuse is viewed; replacing "abuse" with "neglect" was suggested by several.

Comparing CSS nonuse to risking exposure to drunk drivers has some shock value, since the U.S. population has become increasingly sensitized to the trauma of drunk driving crashes. Some find the nonstatistical message -- more children are injured by not being in CSSs than by accidents involving alcohol -- not credible. Some feel that the drunk driving issue is tired and suggest that safety programs look for an analogous concept linking nonuse to some other social evil.

A concept depicting two mothers entering a shopping center, and suggesting that the one who uses a CSS is really showing her love for her child, is rejected with anger.

According to discussions, positive reinforcement by rewarding CSS use appears to have the least potential for boosting CSS use.

- Rewarding children for CSS use, e.g., by providing prizes at fast-food drive-in windows, is viewed as a "novelty" program with quickly fading impact and some

potentially negative implications, e.g., older siblings will feel left out, CSS use may be limited to trips to prize-giving sites.

- Rewarding parents for CSS use (by rewarding children, or directly via toy store or gasoline discounts) appears patronizing to some, suggesting that a merchandise reward and a child's safety are comparable. Furthermore, parents said they would be likely to spend more money than the discount price savings.

- A concept suggesting that "a child safety seat makes riding with children easier and more pleasant for you and for them" is greeted with disbelief by nonusers.

Parents suggest that CSS promotion would be most effective in the electronic media and that children themselves should be targeted both at school and with public service announcements on TV shows aimed at them.

## RECOMMENDATIONS

- Enforcement

Document the apparent high level of support for enforcing penalties of various sorts and levels. Make penalties credible by strengthening and publicizing enforcement efforts. Raise the cost of CSS nonuse by stiffening legal penalties -- higher fines (e.g., equal to CSS cost) and driver's license points. Involve insurance companies in law-enforcement efforts by linking premium increases to CSS law conviction.

- Hardware development and testing

Investigate shortcomings in seat design by means of comparative lab testing (with state-of-the-art crash dummies of children), focus groups and actual injury data. Publicly or quietly share the results with CSS and car manufacturers and retailers. Determine if shortcomings should lead to review or modification of federal CSS design standards.

- Determine relative protection of CSSs and safety belts for children of various ages and sizes.

- Assess compatibility between CSSs and newer restraint systems, such as passive belts and rear-seat three-point belt systems.

- Establish objective criteria for when transition from safety seats to safety belts should occur (which may differ from age limits set by state laws).

● CSS program documentation

Document basic quantitative information about CSS use required to develop efficient programs. Cover the proportion of households owning CSSs or booster seats, household sources and use histories of CSSs, family awareness of CSS law provisions and advocacy organizations etc. Inventory existing loaner programs, hospital programs, employer programs and other suppliers.

● Public information

Provide parents with more information. Make special efforts to communicate features of current CSS law coverage or penalties to new parents and parents of toddlers. Publicize improved seat designs, features and dimensions. Discourage recycling of older, less functional seats. Produce comparative guides to seat features. Broaden and intensify hospital CSS education programs, especially to increase toddler seat use. Address parental fears about evacuating restrained children in emergencies.

Promote CSSs using innovative dissemination techniques. Use caution in determining whether to publicize comparison between safety belts and safety seats, since parents will be very sensitive to data showing that safety belts may cause injury. Discouraging safety belt use may result in more unrestrained children rather than increased CSS use.

● Promotional messages

Use promotional messages which address parent emotions in an unthreatening manner. Emotionally grabbing but subtle "scare" messages avoid the gory presentations likely to be ignored.

Dramatic facts or statistics may be capable of jolting people without threatening them. Avoid evoking parental defensiveness with direct accusatory message strategies. Acknowledge parental good intent. Generate pressure on nonusers by family and friends with messages linking CSS nonuse with lack of love or with child abuse or neglect.

● Targets of messages and programs

Aim communication at:

- Parent nonusers, infant-safety-seat users who fail to sustain a transition to toddler seats, or parents who would otherwise prematurely shift a child to belt use
- Households where there is a risk of toddler displacement from a convertible CSS by a newborn child
- Family and friends of pregnant mothers of toddlers to encourage CSS gifts for second and subsequent children
- Older toddlers (using audiovisual media in preschools and on television to counteract older-toddler perceptions that seats are "babyish")
- Grandparents and babysitters

CONCLUSION

- Widespread but nonuniversal use of CSSs suggests that current programmatic and legal steps to encourage use need to be supplemented, particularly for toddlers.
- The diversity of factors associated with nonuse requires a corresponding diversity of enforcement, hardware, educational and other programmatic initiatives.
- Efforts to increase child safety seat use must enlist the cooperation of manufacturers, state and federal officials, enforcement agents, educators, community organizations and other safety and health institutions.

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## I. INTRODUCTION

### A. Objectives

Child safety seats in cars have been shown to greatly reduce the risks of serious consequences caused by sudden stops and crashes. For children under four years old, they provide relatively more protection than safety belts. They do not guarantee 100% immunity, since some crashes are too severe for absolute protection, but they appear to be very worthwhile safety investments for most circumstances if they are properly secured to the vehicles and children are properly fastened into the seats.

After many years of active promotional programs designed to increase the voluntary usage of child safety seats (CSSs), coupled with the introduction of mandatory usage laws in every state, CSSs are actually in use in just over half of all trips with eligible children nationwide.<sup>1</sup> Although this rate far surpasses that of several years ago, it is nevertheless below expectations. This is particularly true for older toddlers who are far less likely than their younger cohorts to be restrained in CSSs as required by law.

The level of national attention paid to this problem does not appear to be commensurate with its seriousness as a cause of death for children. For example, eradication of drunk driving has become a major national priority in recent years, complete with national publicity and fund-raising efforts for organizations like Mothers Against Drunk Driving (MADD) and strong commitments by law enforcement agencies to utilize the legal and technological tools at their disposal to control the problem. Yet in 1985, children under four years of age were almost twice as likely to be killed as a result of not being restrained than by the involvement of alcohol in accidents.<sup>2</sup>

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<sup>1</sup>Goryl, M.E. Restraint System Usage in the Traffic Population. DOT-HS-806-987, Washington, DC; National Highway Traffic Safety Administration (NHTSA), May, 1986, p.35. A July 1986 NHTSA press release shows a 68% figure for the first six months of 1986.

<sup>2</sup>Analysis of figures from NHTSA's Fatal Accident Reporting System shows 148 children were killed in alcohol-related accidents in 1985, compared to 283 killed in accidents where no alcohol was involved, but where the child was known not to have been restrained.

To increase the usage of CSSs, the National Highway Traffic Safety Administration (NHTSA) commissioned National Analysts both to investigate attitudes and motivations for using and not using CSSs, and to evaluate possible new strategies for converting current nonusers into users. Although the scope of this project was originally intended to examine nonuse for both infants and toddlers, during the course of the research, emphasis shifted to toddler nonuse because of its greater prevalence and greater researchability within the population examined. This, in turn, led to some special attention being given to the process of transition from infant to toddler seats, since many of the toddler-seat nonusers who provided data for this study had, in fact, formerly used infant seats. The absence of any focus on CSS misuse, as opposed to nonuse, should not be taken as expressing a feeling that misuse is not important. Within the time and budget constraints which inevitably shape any real-world research, a more thorough and focused examination of a specific issue seems preferable to an inevitably more superficial examination of a wider series of topics.

More specifically, this research was designed to answer the following questions:

- What motivates parents to use CSSs for their infants?
  - What factors motivate these parents to discontinue using CSSs once their children are no longer infants?
  - What motivates other parents not to abandon their CSSs?
  - How can nonusers of CSSs be converted into users?
- Which possible approaches to promoting CSS use are most appealing to parents of young children?
- Which possible approaches are least appealing?

B. Approach

1. Expert team

At the outset of the project, NHTSA and National Analysts assembled a team of experts in the field of childhood auto safety. This team would review the work being done at

various key stages, provide input to the literature review described below, and make recommendations both about the research design and the results deriving from it. Experts were deliberately sought from a variety of backgrounds: pediatricians, a state police officer, people with CSS industry experience, academicians, a state highway safety planner and representatives of several organizations with active child passenger safety programs. In addition, reviewers at NHTSA provided direction at various points; they, along with the expert team, are listed on the Acknowledgements page at the front of this volume.

## 2. Literature review

This study began with a thorough digest of articles and papers published in the ten years before April 1986 concerning attitudes toward, and the use of, CSSs.

The literature review focused on two specific areas: (1) empirical studies of correlates of CSS use or nonuse, whether demographic, experiential or attitudinal; and (2) empirical evaluations of programs intended to increase CSS use. This led to the omission of a number of important papers in the field of child passenger safety which did not meet these admittedly narrow criteria. In many cases, these were useful to the research team for the background information which they provided, but they are not cited if they were not used as part of the information base from which conclusions were drawn.

The literature search was helpful in identifying specific issues and groups to pursue in the research. For example, it led the research team to appreciate the importance of focusing on CSS users to see how they handle the behavioral problems which many nonusers cite as their reason for nonuse. It identified transition from infant to toddler seats, reactions to law enforcement initiatives, and the use of positive incentives as areas in which there is a knowledge deficit. It also directed research attention toward the linkage (or lack thereof) between adult safety belt use and CSS use, and toward the need to probe child discomfort as a reason for nonuse.

Our findings were reviewed by our team of experts and published in a report entitled "Research Strategies to Increase the Use of Child Safety Seats: An Assessment of Current Knowledge" (Volume II, April 1986).

### 3. Group depth interviews

The actual research reported here was carried out using a qualitative technique called the "group depth interview."

Qualitative research, which involves talking to people in a relatively unstructured manner so as to allow for dialogue and probing, is particularly well suited to discovering underlying attitudes and models of reality. The strength of the group depth interview technique rests in its ability to elicit complex attitudes, perceptions and opinions in all of their richness. It permits deeper probing than would be possible in an ordinary sample survey, and allows for challenge, defense and retreat to reveal deeply held positions as part of the group discussion process. Note that group depth interviews are inappropriate as a substitute for survey research when the basic questions are those of number -- how many believe a particular myth; what is the cost threshold beyond which a CSS is viewed as too expensive? Furthermore, care and judgment must be used to avoid generalizing group depth interview findings to noninterviewed populations, since there is no statistical assurance that the findings are valid and reliable.

Many of the research issues identified in the literature review lend themselves well to group depth interviews, and the technique is also useful in getting "first-cut" responses to program proposals. What appears eminently logical to one who has lived professionally with an issue for some time may have a critical flaw to a target population with a lower level of concern regarding the issue at hand, and with possibly unexpected, even "irrational," priorities of its own.

#### a. Explanation of the technique

We conducted 15 group depth interviews, each lasting two hours, with parents of infants and toddlers. The group depth interview, as practiced at National Analysts, brings together eight or nine respondents selected on some criterion of relevance to the study topic. Each such group of respondents meets with a member of National Analysts' professional staff for about two hours. The staff moderators, with advanced training in social sciences and skills in group dynamics, serve to keep the discussion flowing while minimizing their own participation and avoiding expressing their own opinions.

The group depth interviews are taped and then analyzed in order to understand the areas of consensus and conflict within each group. Such analysis requires a sensitivity not only to what is openly stated by participants, but also to recurring themes and metaphors, the ease or difficulty with which counterposed viewpoints can be understood, and expressions of affect like nervous laughter and the pace and rhythm with which a point is made.

b. Respondent selection

"Recruiting" is the process of obtaining people to participate in group depth interview discussions. Recruiting is normally carried out by specialized interview services who work as subcontractors to research firms, as occurred with this project. The researcher sets up a series of specifications for the qualified respondent (specifications may differ from group to group) and the recruiting service seeks out and invites qualified people to the group depth interview. Contact with potential respondents may be made by intercepting people at shopping centers and probing to assess qualifications. People may be called at home, either at random or on the basis of the neighborhood in which they live, or as a result of referral by friends or neighbors called previously. Recruiting is an unsystematic process which cannot be compared with random sampling for rigor, although, in practical terms, conclusions drawn from focus group research are rarely contradicted by results from surveys using more scientific sampling procedures.

Setting the recruiting specifications was a joint task of National Analysts and NHTSA. Some specifications applied to all groups. These included (1) accepting as qualified only the household head most likely to drive with a child; (2) disqualifying people from households in which there is a law enforcement agency employee, since some of the discussion would touch on illegal activities; and (3) requiring vehicle ownership, thereby disqualifying those who drive borrowed vehicles. At groups done in New Jersey, an additional income qualification (annual household income between \$10,000 and \$38,000) was set in order to exclude the lowest and highest income quintiles. This was intended to exclude the low-income households, which the literature search suggested would be most intractable to programming efforts directed at increasing CSS use, and the high-income households, for whom purchase of a CSS represents a trivial outlay. Successful efforts were also made to ensure that both working and nonworking women were recruited, and that members of minority groups were represented. This was intended to expose researchers to a variety of parenting styles.

Although many of these groups included only current CSS nonusers, several were with current users, as we believe that it is equally important to understand not only why parents do not use CSSs, but also why parents do. By mixing the two together, in two of these groups, we also examined the social interaction between users and nonusers. Both usage and nonusage are based on self-reports, and not confirmed by actual observation.

All respondents were those who most frequently drove with their children. In each group, several of the respondents had to be working at least part-time, as well; it was our hypothesis that full-time homemakers might differ in their parenting behavior from those who worked and thereby spent less time with their children.

The normal procedure for carrying out qualitative market research of this sort is to contract with a recruiting service located in the area where the group interview is to be conducted. Potential respondents are located through a combination of contacts with individuals and organizations, referrals from those contacted to other possible respondents, and other creative search tactics. For this project, such tactics included screening shoppers at local shopping malls and placing advertisements in community newspapers in order to locate parents or guardians who do not use CSSs. (In general, the term "parent," as used here, covers anyone who functions in a parental role.)

In the course of the brief screening interview, those contacted were asked for information about the cars and children in the household, and about household income. Use or nonuse of the child safety seat was based on the responses to the following two questions: "Some people use special child seats designed to hold a child in a car. Thinking about this type of seat for your 18- to 35-month-old, do you own one, rent or borrow one, plan to get one, or use some other method for seating your child in the car?" "Do you use this special seat for this child almost always, sometimes, or hardly ever?" In both cases, the questions provide what we believe are socially acceptable ways of reporting nonuse. Parents who said that they plan to get a seat, or use some other method for seating their child, were classed as nonusers, as were seat owners who reported using it "hardly ever."

We believe that these procedures resulted in groups which generally reflect CSS users and nonusers in the nonpoverty population; those in poverty are rarely reached by the recruiting techniques described above, and the suburban locations in which the groups were conducted, while accessible to inner-city residents, may well have discouraged such people from attending. This may help to explain discrepancies between the amount of nonuse which we found, and observed nonuse in research covering a broader population.

c. Group depth interview sites

Group depth interviews were held at four different sites in the eastern United States to minimize travel costs. Sites were selected on a number of bases, including recommendations of expert team members; variations in state laws and team members' perceptions of level of CSS enforcement in states (for example, the New Jersey law covers children through age four, while the North Carolina law, until shortly before the groups were conducted, covered children only during their first year); the presence or absence of a safety belt mandatory use law (at the time of research, Maryland lacked one); and, not least important, the presence of a recruiting service willing to tackle a very difficult recruiting job. At each site, some additional specifications were set in order to ensure that the project would cover the full range of potential respondents (this is one important mechanism for correcting possible bias in qualitative research), and to determine if certain categories view CSS use in a unique manner. In almost all cases, the additional specifications were set on the basis of the results of the literature search; the one exception is the groups held with nonuser parents who have no child under one year old, which responded to an issue which emerged in some early groups.

The following is a list of the actual groups of parents with whom we spoke:

Edison, NJ -- February 3 to 4, 1986

1. Users -- White-collar; child is two to three years old
2. Users -- Blue-collar; child is two to three years old
3. Nonusers -- White-collar; child is one to nine months old
4. Users -- Couples; white-collar; child is two to three years old

Cherry Hill, NJ -- February 5, 1986

1. Nonusers -- White-collar; child is two to three years old
2. Users -- Blue-collar; child is one to nine months old

Baltimore, MD -- April 8 to 9, 1986

1. Nonusers with household incomes of \$25,000+ if three or five household members; \$35,000+ if five or more
2. Nonusers with household incomes under \$25,000 if three or four household members; under \$35,000 if five or more
3. Nonusers with no child under one year old in household
4. One-half users, one-half nonusers
5. Users

Charlotte, NC -- April 15 to 16, 1986

1. Nonusers with household incomes of \$25,000+ if three or four household members; \$35,000+ if five or more
2. Nonusers with household incomes under \$25,000 if three or four household members; under \$35,000 if five or more
3. Nonusers -- no child under one year old in household
4. One-half users, one-half nonusers

We correctly hypothesized that nonusers would be more difficult to find, since they are behaving counter to accepted social values and (depending on the age of the child and the state) may be violating state law. However, the level of difficulty varied from location to location. In northern New Jersey, we had no difficulty in finding admitted infant-seat nonusers, except that, on further questioning, most of them turned out to be users who were confused about the definition of "child safety seat." Nonusers were difficult to locate in other areas, but groups could be put together except in North Carolina, where a large number of cancellations by those who had agreed to participate was attributed by the recruiting service to nervousness about admitting to a law violation. It should be pointed out, in this connection, that respondents are promised anonymity.

d. Discussion flow

Each group began with a discussion about motivations for using or not using safety seats. Included in the discussion were questions about how the parents were introduced to the seats, attitudes toward the seats, problems which evolve when using CSSs and the methods used to overcome these problems. Following this portion of our session, we introduced different possible approaches for converting nonusers into users, and presented parents with concept statements or advertising themes developed by National Analysts and by NHTSA. A concept statement might be programmatic in nature. For example, some concept statements used in this research described a "tough enforcement" policy by police, or showed what a positive reward program for CSS use might look like. Other concept statements tested communication themes which might be used in print or electronic media advertising, such as the association of injuries to an unrestrained child with child abuse.

A total of 17 concept statements were tested. Since many of the concepts were merely variations on a theme, each group only evaluated 4 or 5 of the 17.

C. Caution on Generalization

As always in a qualitative project, the reader is urged to view the findings as exploratory rather than as definitive. Since neither the locations in which the group depth interviews were conducted nor the people who participated in them were selected randomly, statistical generalization is inappropriate. The current research was intended to probe the attitudes toward, and reactions to, the issues. This investigation results in working hypotheses subject to verification, rather than in statistically validated conclusions.

Observed belt use by toddlers in nineteen metropolitan areas averaged 7.4% and did not exceed 14%; only in six of these areas did belt use exceed 10%, and in five areas, belt use was less than 5%.<sup>1</sup> In contrast, almost all parent participants in this project who did not

<sup>1</sup>Progress report on "Observed Safety Belt and Child Safety Seat Usage at Road Intersections" submitted by Goodell-Grivas, Inc. to Peter Ziegler, National Highway Traffic Safety Administration, Washington, DC: July 10, 1986, p. 11.

use toddler seats claimed to buckle up their toddlers. This project could not make confirmatory observations about the use of restraints by focus group participants, but it seems likely that the participants include a disproportionate number of parents who belt their toddlers.

## II. ATTITUDES TOWARD USAGE OF CHILD SAFETY SEATS FOR INFANTS

### A. Introduction

Nonusers of child safety seats (CSSs) for infants are difficult to recruit for group depth interviews. Although it is very likely that there are occasions when an infant will ride outside of his/her CSS, by and large, a majority of the interviewed population appear to have and regularly use a CSS for their infants. A parent who never uses a CSS for his/her infant is the exception. For many, acquiring and using a CSS have almost become as much a ritual of childbirth as acquiring and using a crib.

This chapter will discuss the primary motivations of safety and convenience which have resulted in the wide acceptance and use of CSSs for infants.

### B. Infant Safety Seat Use Viewed as Normal

Seat use for infants appears to be so widespread and well accepted that finding nonusers for our study was almost impossible. Child safety seats have become normal for many parents of infants. The seats are acquired and used without hesitation or question. Interviewed parents are now so committed to using the seats that nonusers are perceived by users as being derelict. What is particularly fascinating is that these attitudes are as likely to characterize toddler-CSS nonusers as they do toddler-CSS users; even if their responses are dismissed as "socially acceptable," they indicate the extent to which the ideology of use has become normative.

#### 1. Nonusers

Although it was easy to assemble several groups of nonusers of toddler seats, we were unable to gather together even one group of infant-seat nonusers.<sup>1</sup> To suggest that nonusers in

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<sup>1</sup>One group of supposed infant-seat nonusers assembled in Edison, NJ, revealed a terminological difficulty which may be of interest to future researchers in this field. When questioning revealed that these parents were, in fact, restraining their children in infant CSSs, they were asked why they claimed to be nonusers. Further questioning revealed a perceived distinction between CSSs, which are convertible to toddler use, or which can hold an infant sitting up, and an infant seat universally referred to as a "bucket": "Oh, you mean the bucket. Everybody uses that." These parents defined themselves as nonusers on the basis of their nonuse of a convertible seat.

this category do not exist would be presumptuous for a qualitative study. In fact, members of our groups spoke of others who were clearly nonusers, and one or two toddler-seat nonuser respondents admitted to previous infant CSS nonuse.

At the same time, it would be fair to infer two conclusions from our difficulty in finding these nonusers. First, being an infant-seat nonuser now may be such a social taboo that few are willing to admit to their "wrongdoing." And second, the Goodell-Grivas data cited in the introduction, which show infant seat use in only 65.9% of observed trips,<sup>1</sup> may be somewhat invalid, based as they are on trips rather than households. Of course, we also have to acknowledge our limited geographic coverage compared to Goodell-Grivas, and this too may be a factor.

Although the parents we spoke with seem to be convinced of the need to restrain their own children in CSSs, it is clear from the groups that other drivers (e.g., grandparents, car pool drivers) of these children are not necessarily as convinced. The strong level of commitment to CSSs does not seem to extend past the mother and, perhaps, the father.

Other drivers, including grandparents and babysitters, often lack the adamant attitude held by the children's parents. Grandparents, having successfully raised their own children without the use of safety seats, are perhaps the most resistant to the issue. Parents combat this problem either by insisting on their using the seats, or by clearly explaining to their children that grandparent preferences in this matter are not acceptable and should not be taken as wise or responsible.

## 2. Users

For many of these mothers, both blue- and white-collar, acquiring a safety seat is now seen as a necessity rather than a luxury. Safety seats are now categorized with other baby basics, and are acquired in a similar fashion, without a second thought. As will be noted in the next section, the impetus to acquire these seats has been internalized, and is not merely a reaction to the new laws.

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<sup>1</sup>Goryl, M.E. and M.J. Cynecki. Restraint System Usage in the Traffic Population. DOT-HS-806-987. Washington, DC: NHTSA, 1986, p. 36.

"It was sort of like buying anything. Buying sheets for the baby, buying a carriage. It's something you can't live without with a kid."

"When you're pregnant, I thought about...I need a high chair, I need this, and a car seat is one of the things I just needed...."

"If you're going to be a mother, this [buying a CSS] is one of the things you do."

"I don't think you really question it; you just sort of get it."

Safety seats have become such an accepted fact of life that some interviewed parents cannot imagine not using the seats for their infants. These parents are fully convinced of the value of safety seats and use them regularly (though whether they use them properly was not investigated).

"I was given an infant seat, and I just automatically used it. I never questioned it."

"I wouldn't even think twice about not using them."

"I couldn't imagine my daughter not in a car seat."

"It was just a fact; we would have a car seat....I am very strong on a car seat. I will not let anyone take my child anywhere without a car seat. In fact, I just came across a dilemma because I had to change babysitters, and the second babysitter refused to use a car seat in the car, so I had to find a new babysitter."

Some are so convinced of the importance of using the seats that they actually become hostile toward those who are nonusers.

"[Seeing that unrestrained baby on the seat of the car] upset me so bad that I wrote a nasty note and put it on the lady's windshield."

"She lays the baby in the front on the floor on the passenger's side. She puts the blanket down and she puts the baby down. She's crazy, I think she's crazy."

## C. Motivations for Use

In the case of infants, the primary motivating factor for using a CSS appears not to be the law. Interviewed parents perceive the seat as offering several valuable attributes, the most important of which are safety and child restraint. Parents of infants tend to welcome and embrace the safety seat rather than resent it as parents of toddlers often do.

### 1. Safety

Child safety seats are perceived and valued as protectors of helpless beings. Coming right out of their prenatal classes,<sup>1</sup> parents seem to be well aware of the hazards of traveling with an unrestrained or arm-held infant. They are also aware that the CSS provides an infant with the best protection possible. Reacting to their children's fragility and "helplessness," parents of infants often may be characterized as eager users of CSSs. Use of the seat is not even a question.

"To me, a baby in a car...there just doesn't seem to be any reason not to have one. It's very dangerous in my mind."

"They're so helpless when they're little, you have to use them."

"I was so frightened for my little baby's life; you had to do it [put the infant in a seat], you just have to do it."

"I've had my child in a seat since day one. In childbirth classes they scare you to death about what can happen to a baby held in your arms at a 5 mph impact."

### 2. Restraint

Parents of infants in these groups eagerly welcome the CSS not only because of its protective attributes, but because it fills a gap in their lives. That is, a CSS gives the parents a physical location in an automobile in which to place an infant. Without the seat, parents have few viable spots to

<sup>1</sup>Many, but not all, of these women reported being exposed to prenatal programs on CSSs; the proportion among those interviewed may be higher than in the general population.

set the child and are forced to use makeshift substitutes. CSSs offer parents an answer to their problem of what to do with the child which truly has neither the place nor the ability to "sit" in a car.

"I was just sitting here trying to think how you would even do it without a car seat....What do you do with an infant who can't sit up?"

"For infants, I don't know what else you would do with them."

"They're little. You just can't put them in a seat belt."

### III. THE TODDLER-SEAT USER

#### A. Introduction

Parents who use CSSs for toddlers claim to do so primarily for safety reasons, and only secondarily out of respect for the law or for the sake of convenience. The fact that these parents do not abandon the safety seats reflects their own attitudes toward the seat and parenting behavior. Users differentiate themselves from nonusers not so much by the problems they encounter, but by their approach to dealing with those problems. They appear to have distinctive parenting habits and a strong commitment to using the seats, based on feelings about the protection which the seats provide, awareness of legal requirements, and occasional feelings that restrained children behave better.

#### B. User/Nonuser Differences

Important areas of similarity were found between users and nonusers, as well as differences. These groups are not differentiated in this study by their childrens' behavior or, surprisingly, by income level or safety orientation. Users of CSSs differ from nonusers both in their parenting habits and in their level of commitment to using the seats.

Parents of toddlers who use CSSs are not necessarily blessed with naturally cooperative, well-behaved children. Many of their children have demonstrated the same type of behavior which children of nonusers demonstrate. Nor are users of toddler CSSs unusually creative in dealing with child resistance. A major reason for including users in a study focusing on nonuse is to explore coping strategies which CSS users may have developed. Parent users differentiate themselves, however, by their reaction to their children, not by their cleverness.

##### 1. Child behavior fails to differentiate users from nonusers

Although some parents who regularly use CSSs report never having problems with keeping their children happy and in a safety seat, other users report quite different experiences. Like the parents who will be discussed in the nonuser chapter, these parents complain of their children's poor

behavior. Their children try to climb out of the seats and often cry when they are in them. Characterizing them as being better behaved in the seat would be incorrect.

## 2. Income level

Conflicting with past research,<sup>1</sup> we find income to be a poor predictor of CSS usage. In fact, adamant CSS users appear to be as likely to be found in the lower income groups as in the higher income groups with whom we talked. It should be understood, however, that due to the limited scope of our research, we were not able to examine the effects of other socioeconomic variables on CSS usage, or to examine this relationship with any rigor; we may therefore only conclude that usage and income appear not to be related within the income range studied, for these nonrandomly sampled respondents.

## 3. Safety orientation

Similarly, conflicting with the findings of other studies,<sup>2</sup> we find that parental orientations toward their children's

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<sup>1</sup>Gielen, A.C., et al. "Factors Associated with the Use of Child Restraint Devices." Health Education Quarterly 11, no. 2 (Summer 1984): 195-205.

Goodson, J.G., C. Buller, et al. "Prenatal Child Safety Education." Obstetrics and Gynecology 65, no. 3 (March 1985): 312-315.

Hletko, P.J., J. Hletko, et al. "The Effect of a Toddler/Child Restraint Device Rental Program on Observed Correct Use." American Association for Automotive Medicine. 27th Annual Conference. Proceedings. Arlington Heights, IL: AAAM, 1983. 115-125.

<sup>2</sup>Gielen, A.C., et al., op. cit.

Stoke, C.B. Child Safety Seat and Safety Belt Use Among Urban Travelers: Results of the Summer 1983 Survey. Charlottesville, Virginia: Virginia Highway and Transportation Research Council, 1984.

Stulginskas, J.V., and I.B. Pless. "Effects of a Seat Belt Law on Child Restraint Use." American Journal of Disease of Children 137, (1983): 582-585.

safety do not necessarily reflect a similar orientation to their own safety in an automobile. Although all parents who buckle themselves up may also buckle up their children, every child who is restrained is not necessarily accompanied by a restrained parent/driver. There is clearly a double standard in operation whereby it is thought that children must be restrained, and parents need not be.

#### 4. User commitment and tenacity

Given some of the same recalcitrant behavior from their children, these users of CSSs distinguish themselves by not "giving up." These parents can be characterized both by their level of commitment to using the seat and by their persistence. No matter how intolerable the behavior, this seems to be an issue in which the parents do not give in.

"You're never going to back down from telling your kid to get away from the stove."

"She cries...I get upset, but too bad, she's staying in there...."

"I don't allow it. If he's going to be in the front, if I'm just going from here to there, he's strapped in. And there's no choice about it; I just don't allow it. If he's going to be carrying on when he's sitting in his seat, too bad. If he carries on, I just tune him out, turn up the radio; he shuts up...."

A few parents are so committed to the seat, and so persistent, that they will actually invest in several seats until they find one which is "comfortable" for their children. These parents make the assumption that poor seat design is what causes their children's poor behavior. They would rather invest more money than discontinue using their seat.

"To keep peace in the car, if it means going ahead and getting another one to make him happier, if that's what it takes, fine...."

"I was given two, in fact, for a gift, and I hated them, so I bought my own...."

"I think it's frustrating when they get a little older if the car seat doesn't fit properly....I couldn't stand it anymore. There were times when I would actually wait until my husband came home before I would go out....By the time you put all these buckles on and do this, your child is so uncomfortable and crying....So, I bought a new one....The one I have now is terrific....She goes in it without a problem; it's easy. It doesn't matter what she's wearing...."

#### 5. User parenting style

Intertwined with the users' stronger sense of commitment to child safety seats is a different style of parenting which enhances their ability to keep children in CSSs. These parents clearly draw lines to distinguish acceptable behavior. Their adamant position about safety seats is clearly and consistently communicated to their children. Knowing full well that giving in once to their children's tantrums will set an undesirable precedent, these parents will sometimes listen to their children's screams rather than taking them out of the seats as nonusers might.

"She fusses, but it's like, 'tough.' And she knows I'm serious."

"If he does get out, he just doesn't get his way. We just have rules, and if that's a rule, that's a rule."

"I have to be consistent. It would just take one time, and then I would have to put up with screaming."

"The parents who throw up their hands and give up have thrown up their hands ever since the child started taking things they shouldn't have."

#### C. Motivation for Toddler Seat Use

Although some parents may well have gained the impetus to begin using CSSs as a result of state mandatory use laws, they continue to use the seats primarily for safety reasons. Unlike some of the nonusers, they do not resent having to use a seat, but welcome its protection and, sometimes, its convenience.

## 1. Safety

Parents of toddlers who regularly use CSSs gain their motivation to use the seats, and put up with their children's cries, because of a very strong conviction that safety seats are indeed vital. As mentioned earlier, these parents never allow their children to ride unrestrained. They do not seem to doubt that accidents can actually happen to them.

"I use it for protection. Kids never sit still....And if you're hit head-on, that kid's going to go through the windshield."

"Whether you are a good driver or not, you don't know about somebody else up ahead. You've got to use them [CSSs]."

It is interesting to note that, in contrast to findings from past research,<sup>1</sup> we found no correlation between parents who buckle themselves up, and parents who restrain their children in CSSs. In fact, many of the same parents who are adamant users of CSSs also openly admit to not regularly using safety belts for themselves. These parents will often only use their belts to set an example for their children. Others will avoid wearing safety belts until their children "catch" them and remind them to buckle up.

"Once it becomes law, I will wear my seat belt."

## 2. Control

Some parents also appreciate CSSs for their ability to restrain children and prevent them from climbing around the car and disturbing other passengers.

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<sup>1</sup>Stoke, 1984; Gielen, et al., 1984; Stulginskas and Pless, 1983; and Montague, R.B. The Introduction of Child Safety Seat Legislation in Virginia: Types and Levels of Community Response and Effects on Automobile Accident Statistics. Final Report. DTRS5683-C-00034, U.S. Dept. of Transportation, Office of University Research, September 1984, are the most recent relevant studies.

"Another good reason is just to keep the child restrained so that I can concentrate on my driving."

"Safety seats control the child."

However, as will become apparent in Chapter VI, many nonusers do not accept this line of reasoning.

#### IV. THE TODDLER-SEAT NONUSER: THE SAFETY BELT "ALTERNATIVE"

##### A. Introduction

Among interviewed parents, child safety seat usage for toddlers decreases sharply primarily because parents have found an "acceptable" alternative: safety belts.

As we learned from our review of the literature, use of CSSs decreases considerably by the time infants become toddlers. As will be noted in the following chapter, there are many factors which give parents the impetus to stop using safety seats. An important finding of this study, however, is that many parents abandon CSSs only because they have discovered what they believe is an equivalently safe alternative -- safety belts. Although characteristic of those interviewed, the Goryl and Cynecki observation data cited earlier show only one out of four children between the ages of 5 and 12 in safety belts.

##### B. Perceived Need for Restraint

Parents interviewed in this project are generally convinced of the need to restrain toddlers in automobiles.

As the reader will recall from Chapter II, parents use CSSs for their infants because they perceive their children to be helpless. They choose to use the safety seats because they need a viable and safe location for their children. They want to protect their infants, but it is obvious to them that seat belts are not an option for their fragile newborns, who cannot even sit up.

Once their child is able to sit up as an adult might, the need for the CSS is less apparent. Nevertheless, parents are unwilling to allow their children to ride unrestrained in their cars. Surprisingly enough, a vast majority of those interviewed, including nonusers of safety belts, are adamant about the need for using safety restraints for both infants and toddlers. It is clear that parents are now well educated about the hazards of traveling with an unrestrained child. Although many parents interviewed did not use a safety seat for their toddlers, there were very few parents who did not regularly use some form of restraint for their children -- if not a safety seat, then a booster seat or safety belt.

### C. Safety Belts

These parents of toddlers view safety belts as a viable (if perhaps inferior) alternative to CSSs.

As will be discussed in the following chapter, there are many different reasons why parents come to want to remove their toddlers from the CSS in which they grew up. It is important to understand, however, that most of the interviewed parents are, in fact, genuinely concerned with their children's safety, and allow their toddlers to leave the safety seats only because they have discovered another means of securing them within the car. The fact that this method may be illegal, or that it may result in their being counted as CSS nonusers in an observational study, is of little import to them, although potentially significant to professionals in the field of child safety.

Typically, parents in these groups who remove their children from CSSs do not allow their children to ride unrestrained in the vehicle, but place them in safety belts.

More importantly, they will place their children in safety belts with only the slightest twinge of guilt, as they firmly believe that the belts will at least adequately protect their children. When asked for their estimate of the relative proportion of protection seat belts offer for their two- or three-year-olds as compared with CSSs, their answers ranged from 30% to 100%, though tended toward the upper end of the spectrum. It is very clear from this study that many parents firmly believe that their children are well protected in seat belts, and feel comfortable relying on seat belts even if they offer less protection than safety seats.

"If I can't keep him in a car seat, at least I'm going to do second best."

"It's better to have them in a seat belt than nothing at all. So you choose between the car seat and the seat belt, and you choose the seat belt because they stay in the seat belt."

"We used to have a car seat for my three-year-old, but she would climb out, cry out; but we struggled through until she was big enough to get in the seat belts."

"I don't really feel guilty about it....If they were in a car accident...they would get hurt 10% more [in a seat belt than in a CSS]."

Some parents have so much trust in seat belts that they believe that seat belts offer just as much protection to their children as do CSSs.

"I feel like the seat belts do just as good a job of restraining as do the car seats."

"I was under the impression that a two-year-old sitting in a seat belt was just as safe as an adult sitting in a seat belt."

"I don't see what difference there is between him in a seat belt and him in a safety seat if they are restrained."

"What three-year-old is going to hit the dashboard with a seat belt on?"

Still another element in this perception of safety belts as providing protection, even if not of the quality of a CSS, is the issue of compliance. Many parents make an implicit or explicit trade-off between a highly effective CSS which the child will not use, and a perhaps less effective safety belt which will be used.

"Mine squirm out of the car seats whenever I try to put them in, and that is more dangerous."

"I am convinced [of the need for CSSs], but what are you going to do when they don't want to stay in and they get out?"

It is critical that the reader recognizes that a vast majority of CSS nonusers do not at all feel guilty or negligent because they are not using safety seats for their toddlers. In fact, these parents believe they are acting very responsibly by buckling up their children in safety belts. It is the fact that they can maintain their sense of being responsible parents which allows them to abandon the use of safety seats.

D. Booster Seats

Some parents abandon CSSs for booster seats.

Although far less common than those who switch to seat belts, there are some parents who remove their two- or three-year-old toddlers from safety seats and place them in boosters. These parents view boosters as a better alternative than belts.

Since booster seats are federally approved, we have chosen to categorize them with other child safety seats. We have, therefore, also decided not to explore the switch to booster seats, but instead have concentrated on the switch away from federally approved child restraints.

## V. REASONS FOR ABANDONING TODDLER SEATS

### A. Introduction

Perhaps the most surprising finding of this study is the fact that virtually all of the toddler-seat nonusers we talked with are actually former users of child safety seats. These parents often use safety seats for their infants and then abandon the seats.

Many factors contribute to parents' willingness to remove their children from safety seats, including negative reactions to seats by parents and children, seat design problems, birth of siblings and perceived low probability of legal penalties. Given these factors, plus the perception of a viable alternative (safety belts) for toddlers, it is likely that two- to four-year-olds will no longer be restrained in CSSs.

### B. Negative Reactions to the Seat by the Child

Christophersen<sup>1</sup> has demonstrated that children actually behave better in CSSs than out of them. A startling finding from this study is the extent to which toddlers in CSSs apparently misbehave. There are many possible explanations for the children's misbehavior. Whatever the cause, for many parents, riding with a child in a CSS can be both trying and enervating. In fact, the discovery that some children are often better behaved in seat belts leads their parents to abandon CSSs.

Toddler misbehavior in CSSs stems from a variety of causes. At this point, we know very little about what causes a toddler's misbehavior. It is possible that toddlers in CSSs misbehave because they are truly uncomfortable, or because they do not like being restrained as severely as they are in the seat. It is also possible that parents may be misreading their children's attempts to demonstrate their new motor skills with attempts to escape from an "uncomfortable" spot. Similarly, the children may simply be

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<sup>1</sup>Christophersen, E.R. "Children's Behavior During Automobile Rides: Do Car Seats Make a Difference?" Pediatrics 60, no.7 (1977), pp. 69-74.

attempting to assert their sense of independence by removing themselves from the restraints in which they were placed. The extent to which each of these factors actually contributes to misbehavior remains unclear.

It is clear from our research that siblings can often be the cause of a toddler's misbehavior. Realizing that the older children do not have to sit in the seats seems to cause a sense of embarrassment and frustration in those sitting in the clearly different CSSs. Similarly, the introduction of a newborn in another seat can cause the older child in a CSS to feel immature, since he or she is using a device identified with babies. In either case, the net result may well be resistant behavior.

"I would say, 'Let's go bye-bye,' and he would be screaming and arching his back, and I would have to force him in that thing, and he decided he wanted to be like his brother and sister. So, as long as he will sit down and wear the seat belt, that's okay."

"I think, at two years, they're older and they realize, 'I'm a baby if I'm in this car seat.'"

"I have two children; my little girl is two and my little boy is one. After he was born, she saw him in the car seat and she thought she wasn't a baby anymore, so there was no way I could get her in the car seat....So I changed her to a seat belt, so now he's in a car seat and she's in a seat belt everywhere we go...."

### C. Negative Reactions to the Seat by the Parent

The fact that CSS usage rates drop so severely for toddlers may well be partially a reflection of parental attitudes toward CSSs. On several occasions throughout these groups, we heard parents revealing their own personal opinions about the seats either directly or indirectly by projecting their feelings through the voices of their children.

As soon as their children appear to be able to sit in a seat belt as an adult might, parents lose a major incentive for using the safety seat. For many, the CSS, which is no longer seen as a necessity, is now rejected because of its

inconvenience for the parent, "discomfort" for the child, or misperceived potential "danger" (e.g., fear of being unable to free a child in a CSS from a burning or submerged car). This low level of incentive, plus parental biases against the seat, contributes to the decline of CSS usage for toddlers.

### 1. Parental fatigue

By the time a child has reached "the terrible twos," keeping him/her in place in a CSS can be quite a challenge. Parents complain of their children's whining, fussing, crying and attempts to escape from the confines of the seat.

"She stopped using the car seat. She kept climbing out of it; she would not sit in there. She didn't like to sit in the back. If I sit her up front with the seat belt around her, she's fine, because she's up front where I am. But if she goes in the back and I put her in that car seat, forget it; she's out of there in ten minutes. She doesn't like it at all."

"My kids always hated the car seat and would scream and cry, but I made them sit in it when they were babies. And now, I just don't feel it serves the purpose that it did when they were infants."

Wanting to protect their children, these parents do not always immediately give up on the car seat. Instead, they attempt to discipline their children, or design creative methods for keeping them in the seats. Ultimately, however, drained and frustrated, these parents relinquish themselves to their children and become nonusers.

"I don't let my two-year-old tell me what to do. When she climbed out, I would stop, yell, slap. Two weeks later, she would be standing up and bebopping again. I just decided, after a while, that it was easier to leave her in a seat belt."

"You're up at six in the morning, and you're not in bed until one in the morning. It gets pretty hectic. And when you go to put them in the car seat and they don't stay, it makes it worse because you have got to go, and you have got to be here by a certain time, and it gets to be a pain. You say, 'Forget it,' and 'Just sit where you want to sit!...And mine sit in the back seat so they are not right up front."

"And then you get tired of taking stuff away from them."

"...and tired of pulling over."

"You get tired of the bribery and the positive reinforcement. And it's easier to just have them sit there in their seat belts...."

## 2. Inconvenience

An element in what we have called parental fatigue involves the seat itself. Parents commented on the inconvenience of moving the seat between cars, properly securing the seat (particularly if it is an older model requiring that a tether strap be attached to the car) and properly securing the child in the seat. Inconvenience of this sort can be exacerbated if the seat is to be placed in the back seat of a compact or subcompact or two-door car.

## 3. Perception of discomfort

Some parents look at safety seats and imagine being seated in them, and thereby come to the conclusion that the seats are uncomfortable. Cries from their children are then necessarily attributed to the seat's discomfort due to its design and to the mere fact that the passenger is being so restrained. Parents often describe their children as "looking uncomfortable" in their CSSs, citing heat-retaining vinyl in the summer, and the confinement suffered by toddlers in bulky winter clothes. The extent to which a child is actually uncomfortable is very unclear; it is clear, however, that some parents do carry some strong preconceived notions about the comfort of the seat.

"...they're hot...and that poor kid's head would be soaking wet. It was so confining; I mean, he couldn't move; he had straps coming here and here....I wouldn't sit in that thing...."

"...she wouldn't stay in it, and it was uncomfortable. [How did you know it was uncomfortable?] Well, it just looked uncomfortable."

"I'm not comfortable looking at them, so I know he can't be."

It is not unreasonable to suspect that some of this concern for child comfort may reflect guilt over confining the child and limiting his/her movement. We have, however, no direct data to support this speculation.

#### 4. Perception of lack of safety

As much as parents recognize that CSSs can save their babies' lives in a crash, some also express fears that the seats may actually endanger their children's lives, depending on the type of auto accident. They worry that their children could be hurt more by being restrained rather than unrestrained, and they worry that in an emergency such as a fire, they might not be able to remove their children from the "complicated" straps quickly enough. Similar concerns are, of course, used to justify failure to use safety belts.

This lack of trust in the seats does not appear to be rampant among parents, and most are able to rationalize their fear by admitting that the chances are the child will be safer in the CSS than out of it. Nevertheless, when such thoughts haunt the backs of some parents' minds, they offer yet another rationalization for CSS nonuse and, perhaps, the use of seat belts instead.

"The thing that makes me nervous is, God forbid, she's strapped in the car, and a car hits her on that side. If you are not in a seat belt, you can get thrown to the other side, and you are okay. But, if you get hit, you are stuck in that car seat, and there is nothing you can do about it. If you ever have to get her out in time...these car seats, there are fifty different things you got to do to get it off."

"I already got the \$20 ticket, and I still won't buy the car seat because, suppose you are in an accident or your car catches on fire; you can't reach back and get them out of a car seat as fast as you can reach back and get them out of a seat belt...."

The issue came up particularly often among parents with several children, or those with car pool responsibilities.

"I worry about it, because I have a bunch of kids to get out of the car if anything should happen. The more stuff you have to unbuckle or maneuver over their heads ...I'm concerned."

"I always thought, 'What would ever happen...what would I ever do, how would I ever get three kids out of a car seat if we ever....' I just feel with seat belts, I still think they're protected from an impact, and if I ever had to get them out...[it would be a lot quicker than getting them out of a seat]."

#### D. Child Seat Design Problems

As discussed in our review of the literature, some experts in the field believe that improving the design of CSSs would not significantly increase the usage of the seats for toddlers. Given the number of complaints we heard about CSSs, particularly about their size constraints, it is likely that there are some modifications which could be made which may prove to be very productive. As a note of caution, however, it is not clear how many of these parents are owners of the older seats, particularly since several parents discussed having gotten their seats secondhand. It was clear from our discussion that parents with newer, more updated seats are generally more content with the design of their seats.

##### 1. Child size problems

Throughout the groups, we were struck by the number of parents who discontinued using their CSS prematurely because their child had "outgrown" the seat. It is not clear from the groups whether the child had, in fact, outgrown that model of seat, or whether the parent merely assumed that the child was too big for the seat or perhaps had contributed to this misperception by not rerouting the harness straps as the child grew. Considering the number of comments we heard which all paralleled each other, we can hypothesize that the seats are too small for many toddlers, particularly when they are bundled in winter attire.

"David was in his until he was about 15, 16 months old. He grew out of it. He's a large boy and he didn't like it. And he prefers being strapped into a seat belt, and there's no hassle with that."

"Sarah was in the seat until she was two. And she is a tall child and heavier than most, and she was just uncomfortable in it. And she told me, she would say, 'It hurts,' or 'I can't move,' and she would undo it."

"I think he gets more protection, probably, in a seat belt. I can't find a seat that will sit him adequately. He's a big boy for his age."

We have to face the possibility that in some cases, comments such as these are rationalizations; in some group interviews, we thought we had arrived at Lake Wobegon, where all the children are above average. On the other hand, parental reports of replacing inadequate car seats, and continued use of the replacement seats, suggest that, in many cases, the concern is real.

## 2. "Childproofing" seats

Considering toddlers' propensity to demonstrate and practice their abilities to undo snaps and/or to wiggle out of restraints, parents suggest that seat manufacturers begin "childproofing" their seats so that escaping might become a more difficult task for the child. It is not clear to what extent this phenomenon is caused by parental misuse of the seat, such as improperly fastened or improperly routed straps. Although this project did not look at ways to combat misuse of CSSs, several expert team members suggested that such misuse might lead parents and children to discontinue accepting the seat. Misuse could contribute to the ease with which older toddlers have been able to get free of restraint straps. More important, perhaps, is that improper parental adjustment of strap fit, seat orientation within the car and faulty reconfiguration of convertible seats (between their infant setup and their use for growing toddlers) might lead to avoidable discomfort for the toddler. Better owner training and more effective instructional or educational material could help.

## 3. Hot climate problems

Some seat design elements are viewed as unsuitable for hot climates. Parents also suggested improving the seats by protecting the child from metal buckles, which can become

burning-hot during the summer months, and from vinyl seating materials which can become quite hot in sunlight, and which do not allow for air circulation between child and seat.

#### E. Birth of a Sibling

The birth of siblings often results in the displacement of toddlers from their seats. The arrival of a second child can displace a toddler from his/her CSS purely for economic reasons. Typically, acquiring a seat for the first child imposes no economic burden on the parents, since it is often received as a shower present. By contrast, however, since second showers are rarities, acquiring a second seat can become a financial burden for parents. This is exacerbated by the frequent (and often accurate) perception that the period of time during which the household will need two CSSs is brief, making the cost of a second seat less acceptable. Thus, the parents are forced to choose between making the outlay, or using the existing seat for the newborn and placing the apparently able child in seat belts.

"When my one-year-old was born, instead of going out and buying an extra seat, I just started my two-year-old off in the seat belt...."

Perceptions (to be discussed in the next section) of a low risk of legal penalties for failing to use a CSS make this a rational strategy for many, since the period of legal exposure is brief, and the risk of sanction during that period is minimal.

#### F. Low Impact of Legal Penalties

There are obviously many factors which motivate parents to abandon the use of CSSs, often at the crucial transition point from infant to toddler seat. Coupled with these incentives is the lack of a disincentive. Not only do parents have what they believe is a viable alternative, safety belts, but they also have little fear of being penalized for making the move away from safety seats. Although some will not break laws purely out of respect for them, few will not break the law purely out of fear of being ticketed.

1. Perceived low probability of enforcement

Parents expect that their chances of being pulled over for not using a CSS are slim, and the chances of also being fined are even slimmer.

"I honestly don't believe a policeman would give me a ticket."

"I know just from experience that we have been pulled over, and we have not gotten a ticket for it."

"If you were involved in an accident, you probably would get fined. But if he just stops you for a speeding ticket, they wouldn't fine you."

"They look at me and don't do anything."

Parents do not expect to be ticketed, partly because they assume the police have other, more critical issues to attend to, and partly because they anticipate that law enforcers will excuse them if they see that the parent has restrained the child in a seat belt. Parents seem to hope, if not believe, that law enforcers are truly only concerned with fining parents who do not restrain their children at all -- that is, the "true violators" of the law.

"No, I think a lot of cops are more concerned about other stuff....There are a lot more important things that happen day to day than kids being in a car seat and not being strapped in...."

"I think we're all abiding by the law, but we are doing it as best we can for our comfort and our sanity, and for the children's comfort."

It is important to understand, in this connection, that the current magnitude (or more realistically, lack of magnitude) of legal penalties has little to do with such attitudes. Rather, they result from a view of the probability of any penalty at all being applied.

## 2. Perceived low cost of legal penalties

Although parental awareness of the amount of the fine for CSS nonuse varies, virtually all understand the fine to be trivial relative to the cost of a new CSS. Thus, parents who do not own seats often feel it is economically more rational to risk one or more fines than to invest in seats which they believe will be useless (the child will not sit in it), or useful for a brief period until the child is no longer covered by the law. This, for example, characterizes attitudes toward fine waiver which some jurisdictions allow if a convicted driver can show a receipt for a new CSS. Under these circumstances, parents who do not own a seat may feel that it is better to risk one or more fines than to invest in a CSS.

## VI. REACTIONS TO THE PROGRAMMATIC OPTION CONCEPTS

### A. Introduction

#### 1. Concept approaches

After exploring their current attitudes toward and usage of child safety seats, we exposed our respondents to an array of concepts designed to convert current nonusers into users, and solicited their reactions.

A "concept," as used here, is a description of a program theme, usually written out on a single sheet of paper. Such a theme might be the basis for an advertising campaign, a promotional film, a speech at a church or other organization, or some other activity or program which involves disseminating a message. Alternatively, a concept theme might form the basis for activities other than message dissemination, e.g., among the concepts considered in this study are several which deal with various law enforcement practices, and one which attempts to address displacement by younger siblings through encouragement of CSSs as worthy gifts for baby showers for second and later children. Thus, the concepts should not be read as draft advertisements, although any of them might be the basis for promotional materials or programs.

Four different basic approaches were tested by means of these concept themes:

- Negative Reinforcement: Introducing stiffer penalties for nonusers
- Fear: Highlighting the injuries which could result from nonuse
- Guilt: Suggesting that nonusers of CSSs are not acting as responsible, loving parents
- Positive Reinforcement: Rewarding the parents and/or the child for using CSSs

Parents who have substituted seat belts for safety seats believe that they are providing their children with adequate protection. Hence, these parents are generally not affected by messages which provoke fear, guilt or positive reinforcement. These same parents, however, hypothesize that CSS and seat belt nonusers (i.e., the totally negligent, from their point of view) would be strongly affected by the fear-provoking concepts. The approach which appears to win the most converts, however, is negative reinforcement, particularly when the penalty impacts on their wallets. The following material will describe the specific concepts tested.

## 2. General resistance to concepts

Parents who restrain their toddlers in seat belts strongly believe that they are effectively protecting their children's lives, and see themselves as loving, responsible parents. More importantly, they tend to consider themselves as responsible as the parents who use CSSs. They do not see themselves as nonusers of child restraints. Nonusers are those who offer their children no protection in an automobile. Nonusers are classified as being in quite a different category of parents as compared with those like themselves, who use safety belts for their children. Consequently, many parents who do not use CSSs reviewed each of the concepts and rejected or ignored the message, citing their belief that the messages are targeted only to those who use no restraints for their children at all. They are so convinced that they are effectively protecting their children that they actually become closed-minded to many of the messages.

"They have to really approach it in a different way to get me to change my mind about it right now. I feel like he is restrained enough."

These parents assert that they will only begin to consider the messages when it becomes clear that toddlers are unsafe in safety belts. They would like the messages to highlight the differences between using CSSs and using seat belts for toddlers; highlighting the differences between using a CSS and not is seen as irrelevant to them.

Hence, as will be seen throughout this chapter, a common response to many of the concepts was:

"I just feel that if my kid is at least buckled in a seat belt, I won't feel guilty."

"I would like to see some real statistics about children in seat belts versus children in safety seats versus children not restrained at all."

"This is aimed at people who don't use seat belts, either."

#### B. Negative Reinforcement

Negative reinforcement was tested in a number of concepts. Parents were threatened with either stiffer economic penalties from law enforcement activity (concepts "Enforcement 1" and "Enforcement 2") for breaking the law and not using a CSS, or public embarrassment (concept "Publicity"). Finally, a concept stressing noneconomic benefits of obeying the law (concept "Red Light") was tested. By far, the most promising concepts are those which involve economic sanctions.

Above all the other concepts tested, those which threaten stiffer penalties for breaking the law seem to have the greatest potential for motivating nonusers of CSSs. A possible explanation for the effectiveness of this method is that, unlike others, these concepts clearly define the guilty parties. As the reader will recall, the approaches which attempt to evoke guilt or fear are often (we will see below) dismissed by parents claiming that the message was not targeted toward themselves, but toward others. The other methods seem to be filled with guilt-absolving loopholes. These concepts, however, offer no loopholes; you are either lawfully restraining your toddler or you are not -- in which case, without exception, you are eligible for penalties.

Once nonusers recognize that the message is targeted to them, they seem to pay more attention to the penalties, and it is clear from this study that the type of penalty is crucial for the success of the program. For example, threatening embarrassment or reminding parents that they are lawbreakers if they do not use the seats is not nearly as effective as threatening the parent with an actual monetary penalty. Of the penalties proposed, those which actually fine the parents, threaten their insurance rates or put points on their licenses are dreaded the most, and therefore offer the most promise of converting nonusers.

1. Stiffer penalties and increased enforcement

a. Effectiveness

Stiffer penalties and increased enforcement are viewed as effective motivators by both users and nonusers. The "Enforcement 1" and "Enforcement 2" concepts are different variations of the same approach: penalizing lawbreakers. The major thrust of these concepts is to make serious consequences for CSS nonuse believable. Thus, one statement posits a "reckless endangerment" charge for repeated nonuse, resulting in points or a 60-day license suspension, while the other anticipates \$60 first-offense fines, coupled with license and insurance points. Although both propose stiffer penalties than those currently in place, the "Enforcement 1" concept also attacks the issue of enforcement by introducing the watching eyes of numerous other civil servants, such as toll collectors, sanitation workers and others who might have a radio link to law enforcement agencies.

Enforcement 1

Placing children under five in an approved child safety seat is not only smart, it is the law in New Jersey and every other state in America. New Jersey law enforcement officers and judges take the law very seriously. Although the penalty for a first offense is only \$10 to \$25, repeated offenses can result in a charge of "reckless endangerment," which automatically puts three points on your license if convicted, and may result in a 60-day suspension of your driver's license. This spring and summer, the state troopers and municipal police departments all over the state will be using unmarked cars to enforce the child safety seat law, and they will be joined by toll collectors, sanitation workers, and other state and municipal employees who use two-way radios in their work. These civilian observers will be able to report vehicles with unrestrained children to the nearest police safety team, which will then investigate. Don't take a chance with your child's life...don't take a chance with your own driver's license...use child safety seats for children under five.

No concept option was discussed with participants about ways to effectively raise compliance with existing laws using enforcement and public relations.

## Enforcement 2

Not using an approved child safety seat could be one of the most expensive mistakes you'll ever make. After several years of relatively low penalties and little enforcement, North Carolina's child safety seat law is about to be toughened up. Here is what is proposed:

- Police officers at all levels will be instructed to enforce the law as a primary offense, without requiring another traffic violation in order to stop a car.
- The fine for a first offense goes up to \$60 and three points on your driver's license.
- The fine will no longer be waived if you show proof that you have bought a child safety seat.
- Penalties apply for each unrestrained child in the vehicle; the driver is responsible for all children, regardless of their relationship to him or her.
- One or more insurance points would be levied, which could raise your insurance premiums 10 to 40% for the next three years.

Placing children in an approved child safety seat is not only smart, it's the law.

The penalty which is expected to have the greatest effect on nonusers is the introduction of the point system for violators of the CSS law. Points are dreaded far more than fines. As several respondents asserted, "Points scare me."

"If they're going to put points on my driver's license, it makes me worried. My insurance is high enough."

"I know for my husband, the money is -- Ehh. The points would get him upset, and right now he is not as strongly convinced about car seats as I am...but if he saw that besides a fine, he might get some points, it would make more of an impact on him."

"You can get three points, too, and then you're in trouble....Suspension of your license for 60 days, that means a lot to me."

"Knowing that you can get a fine I don't think does much to many people. You have to know people who actually got points to make an impact."

Although a \$10 to \$25 fine is not perceived as threatening, a \$60 fine is seen as very much so. With the expectation that they might get stopped and fined only once or, at most, twice, parents who are CSS nonusers believe that it is economically wiser to risk paying two fines at the current lower level than to invest in a CSS.

"The odds are that you will never get stopped....And if you do, \$25 is not much, but then the second time you get stopped, your child will probably be old enough that you won't have to worry about that anyway."

"I think I would wait to get the \$10 or \$25 fine, and then I might do it."

"I think I would wait to get the \$20 to \$25 fine first."

By contrast, penalties which have a greater impact on the wallet (higher insurance rates and/or a \$60 fine) are seen as much more threatening. With the stakes raised, parents seem much more motivated to become CSS users (again), even at the cost of enduring cries of outrage from their children.

"If it's going to cost serious money, then you're going to have to go out and buy ear plugs."

"I would probably put him back in it."

"They hit you where it hurts the most...the pocketbook."

b. Support and opposition

Many parents appear to welcome these stiffer penalties, while others are hostile to them.

Parental reactions suggest that there would be a broad base of political support for raising CSS violation penalties. Current CSS users who are interested in increasing CSS usage react very positively to these concepts. They hypothesize that stiffer penalties, coupled with improved enforcement, will effectively motivate nonusers.

"Can I ask if it's all true? I think it's good if it is."

"Good. They need to enforce these laws."

"And it should be said several times a day on the radio."

Other parents are angered by the concept of stiffer penalties and feel as though the government is overstepping its boundaries.

"I resent this, especially for a three-year-old....How much safety difference is there for a two-year-old rather than a three-year-old? I think they are just overregulating."

"It's too strict."

"It's going to be hard to be responsible for every child."

c. Reactions to unobtrusive enforcement

Although parents object to the "spies" in the "Enforcement 1" concept, they also expect that the possibility of their existence will help them in managing their children.

Parents strongly object to what they see as 1984-ish overtones found in this concept. Having government eyes everywhere, watching, does not follow the basic American way of life to which they are accustomed.

"I don't like people checking up on me. I feel like someone's watching me."

"I'm not crazy about unmarked cars and sanitation workers, because that implies you're being spied on."

"I think it's taking it a bit too far."

"It's like Big Brother is watching you."

Recognizing that the concept contrasts so strongly with any enforcement efforts which they have experienced, and recalling how unlikely they believe even a fine to be, parents find such unobtrusive enforcement incredible. They end up dismissing this portion of the concept as unreasonable and ridiculous.

"It seemed a little farfetched that the sanitation worker has a little two-way radio and will be watching you."

"How many toll collectors and garbage men are going to say, 'Hey, get that car!'"

"This is scary, but at the same time, I can't believe it, because I can't imagine the trash workers and municipal employees taking the time out to do this."

In spite of their belief that municipal workers will never truly watch out for CSS violators, some parents actually welcome the "Enforcement 2" concept as a tool for disciplining their children. Throughout these groups, we discovered many parents who effectively convince their children to remain in or get back into their CSSs by telling them that a policeman is coming. These parents believe that

being able to point out other government employees who are watching out for kids who are not in their CSSs will increase the likelihood that their children will remain in their seats.

"You can tell your kid that it's not just policemen that are looking. When you go through a tollbooth, you can say the tollman is watching...."

"You can tell your child that all these different people are watching."

d. Obedience for its own sake

Unlike the "law enforcement" concepts, the concept entitled "Red Light" does not mention any penalty for CSS nonuse. It stresses the benefit of CSS laws by comparing them to obeying traffic signals because they make for safer streets, rather than because of the fine involved. Not only does it not spell out the possible financial costs, but unlike other concepts, it does not even spell out the possible physical or mental damage which might accrue from not using a CSS. In short, the only incentive which "Red Light" offers -- the avoidance of guilt for being a lawbreaker -- is clearly not incentive enough to motivate parents to become users. Moreover, the concept was written so as to moderate such guilt.

Red Light

Do you stop at a red light because you are afraid of getting a ticket, or because it just makes sense to let traffic going in different directions take turns using an intersection? New Jersey has another traffic law that makes sense, too...children in this state must ride in an approved child safety seat (if over 18 months, they may use seat belts in the back seat). When you drive, you're responsible for seeing that all the children in your car, whether yours or anyone else's, are properly restrained. Don't be a lawbreaker, especially when the law makes so much sense...use child safety seats whenever you drive with youngsters under five.

Reactions to the concept stressed the absence of what these parents view as compelling reasons to use safety seats. In short, the fundamental argument of the concept is not persuasive.

"They don't really tell you what's going to happen to your child -- how severely your child is going to be hurt or killed."

"It doesn't tell you why those restraints are necessary."

"I think parents who aren't using the seats could care less about [complying with] the law."

## 2. Publicity

Publicizing the names of CSS offenders is virtually laughed at out of a sense of indifference, if not defiance.

### Publicity

The North Carolina Press Association today announced that its member newspapers and radio stations have agreed to publicize violators of the state's child safety seat law.

Reports of accidents involving small children will now note whether or not the child was restrained in an approved child safety seat, and the name of the responsible adult. Adults convicted under North Carolina's child safety seat law can expect some publicity too; daily and weekly newspapers throughout the state will carry a weekly "Roll of Dishonor" feature listing their names.

There are two general reactions to the "Publicity" concept's threat of public exposure. Some view the published list of violators as ridiculous and claim that it will have no effect on them at all. Many feel quite confident that if they are placed on the list, it will be for unjust reasons, since they are, in one shape or another, acting responsibly and providing for their children's safety.

"If they asked me, I would tell them that I felt my child was safe with the safety belt. I'm responsible for him."

Others find the concept insulting and a violation of their right to personal privacy. How they manage their children is no one's business but their own. Further, they assert that no one publishes lists of parents who beat their children. The very parents who do use CSSs may well be child abusers, they say, so it is unfair to criticize parents solely on the basis of how they restrain their children. If other matters of child management are private issues, then this should be as well.

"I don't think it's any of their business."

"It wouldn't bother me. I would say, 'Hey, look, that's my choice' to anyone who criticized me."

"It's like the reign of terror....It turns me off....It's a violation of your privacy."

Several of our North Carolina respondents implicitly criticize the efficacy of the concept by pointing to the local practice of publishing the names of those in arrears on their property taxes. Several respondents had appeared in such lists, and treated the experience as inconsequential; no one had commented, nor did they themselves view publication as a source of shame.

In either case, many agree that neither they nor their friends would ever even look at the list. In sum, there is a strong consensus that this approach would not be very effective in converting nonusers, and that the concept of public humiliation in itself is neither dreaded nor seen as very threatening.

### C. Fear

Certain kinds of scare tactics are effective in motivating nonusers to increase their usage of CSSs.

Three of the concepts tested ("Consequences," "Survival" and "Vase") were designed to evoke a sense of fear in current CSS nonusers. They attempt to communicate to the parent, in a nongraphic fashion, some of the possible net results of not restraining a child in a CSS. Although the concepts

necessarily also evoke a sense of guilt, the main intent of these concepts is to highlight the horrible things which could happen to an unrestrained child; the issue of whose fault it may be is irrelevant.

Both users and nonusers of CSSs expect that the best way to convert nonusers is to educate them about the evils of using seat belts for toddlers and about the horrendous damage which could be caused by not using a CSS. Consequently, these three fear-provoking statements receive the most positive review in terms of their potential for changing behavior.

Although our review of the literature found that scare tactics are typically unsuccessful, we are no longer convinced. If nothing else, it is clear from these groups that many mothers gain their motivation to use CSSs in their prenatal classes. These mothers carry seemingly vivid memories from movies of the possible damage which nonusage of CSSs for infants might cause. Parents assert that if they learned more about what could happen to their children, once again, they might be frightened into using CSSs for their toddlers.

1. Focus on consequences of collision, rather than on collision itself

An emotion-laden testimonial to the consequences of a collision where a CSS was not used receives the best reception.

Consequences

It never seemed very important to put Tommy in his child safety seat. I had been driving over ten years without so much as a scratch on the car. Most of my trips were short, just to the store, or to a friend's, and it seemed so much trouble to buckle Tommy in...and he hated sitting in the seat so much. How could I have anticipated a drunk driver on my very own street? I think about that safety seat a lot now, every time I put Tommy in his wheelchair or take him out of it. I think about it when I have to bathe Tommy, and when I have to feed him, and when I worry about who will take care of him when I no longer can. And the thing that I don't understand is...how could I possibly have thought that using Tommy's child safety seat was too much trouble?

Of all the concepts, "Consequences" seems to be the one which truly "hit home." This concept describes a mother's continuing guilt as she cares for her wheelchair-bound, apparently brain-damaged child. Unlike others, the scenario is not rejected as being unrealistic or insulting; in fact, it seems as though parents find the description almost too realistic. The typical first reaction to this concept is dead silence. Following the silence, parents either admit to their fear, or calm themselves by recalling the fact that their children do not ride unrestrained, but use seat belts.

"That would hit a lot of people who do not normally bother with CSSs."

"Maybe you want to try harder to put your kid in one of them."

"I do have him in a seat belt, so it's not as though he's not protected."

## 2. "Happy Ending" fear arousal

An "accident with a happy ending" concept may still be too frightening.

### Survival

When I saw what the car looked like, it was hard to believe that we had come out of the wreck alive. But there I was, standing by the curb with my little girl beside me, talking with the police officer and trying to calm down after the experience. The policeman said that my safety belt and my daughter's safety seat had saved our lives. A chill went down my spine when I heard him say, "I wasn't looking forward to what I expected to see in that wreck. Even a cop never gets used to the bodies. Then I heard the child crying, and I thought to myself, 'Maybe her mother was smart enough to use a child safety seat...maybe there's a chance.'"

I didn't tell him that I almost didn't use the seat that day, that I had gotten tired of constantly fighting with my daughter to stay in it. I don't know what made me be a little firmer that morning. I just looked at the wrecked car again and was thankful.

The statement called "Survival" (a testimonial describing a restrained child uninjured in a wreck) was developed to probe the effect of more subtle forms of fear arousal in order to avert the kind of selective inattention which gorier promotional material sometimes elicits. It was tested with only a limited number of respondents, and therefore it is difficult to come to any strong conclusions about reactions to it. Nevertheless, we were struck by the fact that virtually all of the parents' comments are attempts to allay any of their worries or fears which arise as a result of the concept statement. Once again, they try to assure themselves that toddlers in safety belts are in fact better off than the unrestrained children, and perhaps as well protected as those in CSSs. They want to believe that their children would be found safe and sound by the policemen in the "Survival" concept.

"I get chills. It's almost carrying it to an extreme."

"I don't see what difference there is between him in a seat belt and him in a safety seat if they are restrained."

"It still doesn't say what would happen in a seat belt."

### 3. Symbolic fear arousal

A "breakable vase" concept is seen as too subtle.

#### Vase

Would you send a delicate vase through the mail wrapped in some brown paper and string? Not if you wanted it to get where it's going in one piece! You don't need to be a genius to know that you have to protect breakable objects by wrapping them and putting them in strong boxes when you want them to go from one place to another. Your baby or toddler is breakable too, and much more valuable than any vase. Doesn't it make sense to give your child the same kind of protection? Approved child safety seats are designed to cushion their fragile occupants against the forces generated in crash, a sudden swerve or a strong application of the brakes. Without a child safety seat, your precious cargo is like an unwrapped vase in a post office. Protect your valuables...in the mail and in your car.

Whereas the "Consequences" and "Survival" concepts are perceived as almost too real and frightening, this concept (which compares using a CSS to packaging a delicate article before sending it through the mail) is rated as being too subtle and not offering enough of an image of reality. As much as parents do not seem to react well to frank descriptions of what might happen, they are interested in more vivid imagery than offered in this statement, which is seen as being "dull."

"It's too subtle."

"It doesn't sound strong enough."

"I don't think anyone would get past the first line or two."

One respondent offered a possible solution to the problem. She suggested that it would be more interesting and effective to witness the effects of a short stop on a child sitting in a CSS and on a vase sitting unrestrained next to the child. This type of vivid depiction seems to be exactly what people are asking for.

#### D. Guilt

Confronted with guilt, nonusers of CSSs in these groups find ways to absolve themselves.

Four of the concept statements ("Abuse 1," "Abuse 2," "Drunk Driver" and "Showing Love") rely on guilt as a means of persuasion. Unlike some of the other concepts, these do not try to scare the parents by focusing on what could happen to an unrestrained child; instead, these concepts remind the readers of their own inadequacies as parents. The messages imply that parents who do not use CSSs are not as responsible, caring or loving as those who do.

These concepts appear to be relatively ineffective in motivating attitudes favorable to toddler seat use. The primary reaction to these concepts, denial, is based on a

belief by nonusers that they are not the guilty parties whom the messages were designed to reach. Other means of exoneration were developed as well. In sum, rather than focusing on the overall message, parents find different elements in each of the concepts to focus on which then allow them to escape from any sensation of guilt.

1. Association with child abuse

Parents are so offended by association of their behavior with the label of "child abuser" that they completely ignore the contents of the "Abuse 1" concept.

Abuse 1

We all know about the problem of child abuse -- children injured, sometimes even killed by parents who just lose control. But some of the very people who read about it in the newspaper and shake their heads and say, "I certainly would never do that" are potential child abusers themselves. They don't beat their children. They do things like sitting in the front seat of a car with a baby in their arms...they'll let a three-year-old climb over the front seatback to get to the back seat...they'll put an infant in a feeder seat on the floor of the car. But far too often, the result is the same -- an injured child. One short stop, one little fender bender and a light, little body suddenly becomes heavy with momentum as it hurtles into the dashboard or worse. That's the risk of driving with a child who is not securely buckled into a child safety seat. That's how good, loving, caring parents can become child abusers. Don't risk it...don't drive with children who aren't buckled into an approved child safety seat.

Although parents do not as much reject a message which merely implies that nonusage of CSSs is similar to child abuse, they react vehemently to any messages which directly and openly

equate the two. These parents see child abuse as a very different and much graver problem than not using a CSS; equating the two is offensive. Consequently, respondents focus their eyes on the words "child abuse" and allow the remaining words to fade into a blur. Even users of CSSs who tend to be disgusted by nonusers expect that the message would be too abrasive to be effective.

"As soon as I saw 'child abuse,' I said, 'Not me!' and so everything else from there down sort of doesn't apply anymore."

"What you want to do is make people see the results of not using it [a CSS]. When you use terms like 'abuse' and 'not loving your child,' when you do that, you turn people off, because there's a very emotional reaction to it...."

"I would think that if I were a parent who wasn't using one, I would be offended by it...I don't like to be accused of not loving my child...."

"I got turned off when I saw it say, 'You are a potential child abuser.'"

Parents claim that removing the word "abuse" and replacing it with "neglect" would be far less threatening and therefore more effective.

"The same thing without the 'child abuse' I don't think I would have a problem with."

"'Neglect' is better than 'abuse.'"

Similarly, a message which merely implies abuse instead of directly stating the word is seen as less threatening. Discussions of what such a message might be like led directly to the development of a more indirect "abuse" concept, discussed below. Parents would then be given the option to read or ignore the implications of the message as they

wished. Considering their hostility to the label of child abuser, one can assume that most parents will choose the latter course.

Although the majority of respondents reject the "Abuse 1" concept as being too insulting and "heavy-handed," some current users of CSSs hypothesize that the approach may be effective in alerting nonusers to the seriousness of their acts.

"It makes them realize that they're abusing and not being the best parent. It makes you realize that no one but you will make the decision to protect the child."

"I think it would be effective because it's labeling the person to a degree....It puts it in a different perspective....It makes you realize, who is going to make the decision for the child other than you...."

## 2. Indirect association with child abuse

Indirect association with child abuse is rejected for many of the same reasons as more direct association.

After receiving consistently hostile reactions to the first "Abuse" concept, we created an alternative designed to communicate that a child injured in an auto accident may well look like an abused child. Instead of accusing the parent of potentially being a child abuser, this message suggests that parents may be mistaken for a child abuser, based on the bruises that can show on a child's body because of something as simple and as common as a sudden car stop.

## Abuse 2

Late afternoon in a hospital emergency room. A bruised young child, past the time of tears, and only aware of the places where he hurts. A mother, numb with grief and remorse. An intern who has seen it too many times pokes his head into the supervisor's office and says, "It looks like she really let him have it. Better get a social worker down here, we have another child abuse case." And the supervising doctor looks up from the chart and says, "It's not child abuse...at least, not the way you think. She was driving with the kid -- no child safety seat -- stopped short, and the kid went into the dashboard. Can't call the social worker on that one.<sup>1</sup> When are they ever going to learn that love alone can't protect a kid in a car?"

The subtle implications of the message, however, are completely overlooked and, instead, parents choose to focus once again on the words "child abuse." Reactions to this concept are almost identical to those evoked by the prior concept. Parents are disgusted and appalled by the parallel drawn between CSS nonusers and child abusers, and they either flatly reject the assertion or absolve themselves with the excuse that they place their children in seat belts.

"I think that stinks. I am not abusing my child."

"That doesn't do anything to me at all, because my kid's not in the front seat, and I've got him buckled in. He's not going into the dashboard."

### 3. Association with drunk driving

Comparing CSS nonuse to driving while drunk evokes a sense of shock and disbelief.

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<sup>1</sup>Stephanie Tombrello, L.C.S.W., Executive Director of the Los Angeles Area Child Passenger Safety Association, reviewed this report and points out that hospitals in Los Angeles do, in fact, report unrestrained injured children to their social workers, and provide counseling to the parents involved.

### Drunk Driver

What could be worse than a drunk driver? We've learned how much sadness, injury and death they can cause, and we've demanded that drunks on the road be stopped and punished severely. But what should we do with a group of drivers who cause more child injuries than drunk drivers? These are people who drive with children not buckled into approved child safety seats. Year after year, the figures show that children are more likely to be hurt because they weren't in safety seats than by accidents involving drunk drivers. When it comes to risking kids' lives, the parent without a child safety seat is more dangerous than a drunken driver. You wouldn't drive drunk...don't do something that's even worse.

Thanks to recent campaigns against drunken driving, parents are acutely aware of the hazards created by these drivers, and are openly hostile toward and fearful of them. Drunken drivers are socially unacceptable, and are categorized as criminals to be punished accordingly. Hence, comparing CSS nonuse to drunken driving has shock value.<sup>1</sup>

"It makes you stop and think, 'What can be worse than a drunk driver?'"

"This has the most impact on me of any of them because I feel very strongly about drunk driving. And you're telling me that I'm worse than a drunk driver."

"I didn't know that there were more children hurt that way...."

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<sup>1</sup>The "Drunk Driver" concept suggests that more child injuries are due to CSS nonuse than to drunken driving; the relationship is presented quantitatively on page 1 of this report.

For some, the shock leads to rejection of the premise. These parents see the comparison of CSS nonusers to drunk drivers as unfair, if not insulting.

"I think that [the comparison] is disgusting."

"It makes me angry to hear something like that -- to accuse a parent of intentionally endangering a child by not doing something."

"It's saying that people who don't use child seats are worse than drunk drivers, and I'm not going to even touch that. As far as drunk drivers go, I have no sympathy for them."

"I think a drunk driver is ten times worse and ten times more irresponsible."

Evoking such anger does not necessarily argue that this is the wrong course; clearly, the drunk-driving concept is getting past defenses which might filter out less emotionally responsive concepts.

Other parents seek to absolve themselves from guilt-by-association by questioning (rather than flatly rejecting) the premise that more children are injured by not using CSSs than by drunken drivers. Out of disbelief, they demand statistics, question whether the children were using any restraints at all, and question the seriousness of the injuries.

"Children are more likely to be hurt; how hurt?"

"Injuries, what kind? Children, how old?"

"[The concept] hit so hard that I tend to rationalize this and say, 'What statistics?'"

"I would have to see some real statistics about children in seat belts versus children in safety seats versus children not restrained at all."

Some complain that the drunken driver issue is now tired.

Judging from the reactions received, one senses that parents have perhaps heard too much about drunken drivers, and are now growing tired of the issue. There was an undercurrent of opinion which seemed to exclaim with a sigh, "Not another petition about drunken drivers." The "Drunk Driver" concept in theory is viewed positively, while at the same time some would prefer to choose a fresher evil to focus on than drunken drivers.

#### 4. Association with parental love

A concept statement depicting two mothers entering a shopping center, and suggesting that the one who uses a CSS is really showing her love for her child, is rejected with anger.

##### Showing Love

Two mothers drive into a shopping center parking lot. One has a child sitting on the seat next to her; they both get out of the car and go into the store. The other mother has to take a few extra moments to unbuckle her child from the approved child safety seat which is in the car. Both mothers would say that they love their children. But which mother is really showing her love, not just saying it? Which mother is being a more responsible parent? Buy and use an approved child safety seat...it's today's way of saying "I love you."

Once again, rather than allowing themselves to be smitten by guilt, these parents reject the premise of the concept. Most find the concept to be unfair, if not ridiculous. They argue

that no one can be the judge of their love for their children, and that their use of seat belts instead of CSSs should not be interpreted as their loving their children less.

"How dare you say I don't love my child as much as she does."

"Who are they to say that you don't love your child?"

"I think there is a softer way of doing it. I think the very people you want to convince will be turned off by it."

"I put them in seat belts, and I feel I love my children as much as ever."

"The one who uses a CSS might also physically abuse the kid."

## E. Positive Reinforcement

### 1. Introduction

Since using a CSS can often be such a negative experience, one approach tested to increase the usage of CSSs was the notion of rewarding either the child or the parent for using a CSS. Concepts headed "Toys," "Burgers" and "Behavior," as well as others developed orally during the groups, were designed to test these ideas.

Judging from these parents' reactions, positive reinforcement appears to have the least potential of all the techniques for winning converts. The idea of rewarding children is rejected as being nothing but a short-term remedy to the problem. Rewarding parents with prizes is generally viewed as ludicrous, if not insulting, and the concept of rewarding parents with a child's improved behavior because of a CSS is seen as desirable, but unlikely to happen.

That this approach was so clearly and quickly rejected may well be attributed to the fact that many of the parents have already tried these methods. As noted earlier in this report, parents are indeed convinced of the need to use CSSs and, before abandoning them, they do struggle to keep their children in their seats. Some parents have already tried "bribing" or rewarding their children and have been unsuccessful. The concept of positive reinforcement is not new to them, and the idea of winning rewards themselves is seen as nice, but certainly not a motivator for beginning to use (or reuse) CSSs.

## 2. Rewards from businesses

### a. Toy store discounts

Parents quickly reject the "Toys" concept (in which CSS users are offered a coupon good for a dollar at a national toy store chain) because they realize that the program would actually end up costing them money. Recognizing that one dollar at a toy store will buy very little, most hypothesize that it would be very likely that they would end up being cajoled into spending quite a bit more than the certificate would cover. Hence, receiving the prize would almost be a penalty.

#### Toys

If you don't have a child safety seat, you could lose two ways -- first, because you're not giving your child the best possible protection, and second, because you're not eligible for the Secret Seat Supervisor Sweepstakes! We'll have Secret Seat Supervisors out on the streets and in the shopping centers. They'll be looking for children who are properly restrained in a child safety seat, and when they see one, his parent or guardian will get a \$1 merchandise certificate good at any Toys 'R Us store. If you're spotted more than once, you could get more than one certificate! Best of all, every certificate enters you in a sweepstakes drawing for \$1,000! Children in safety seats are winners because they have an extra measure of protection in an accident...and now their parents or guardians can be winners, too.

This concept is so clearly rejected by all for this very reason that it was only tested in one or two groups, and was then abandoned in favor of a similar concept, "Burgers," which addresses some of these weaknesses.

b. Fast-food rewards

Parents do not expect that a fast-food restaurant reward program will have any long-term effects.

The reward concept used most frequently in these groups promises a free order of french fries or a Smurf finger puppet to any child observed in a CSS by drive-through window personnel at McDonald's fast-food restaurants (to reiterate the caveat at the front of this report, this brand name was used to make a research tool more realistic, and does not reflect any actual or planned McDonald's promotion, so far as we know).

Burgers

If you don't have a child safety seat, you could lose two ways -- first, because you're not giving your child the best possible protection, and second, because you're not eligible for McDonald's Safe Rider prizes. Every time a McDonald's drive-through window person sees a child safely belted into an approved child safety seat, he or she will reward the child with a choice of a free regular order of french fries, or a Smurf finger puppet. Children in safety seats are winners because they have an extra measure of protection in an accident...and now they can be winners at McDonald's, too.

Although some parents reject the notion of rewarding a child with food, the overwhelming first reaction to the "Burgers" concept is laughter -- laughter in recollection of just how much children love McDonald's french fries. Knowing how well their children will react to a trip to McDonald's for fries, parents expect that they can effectively bribe their children to sit in their CSSs. Knowing their children, parents also

recognize that this bribery system will have only a short life. They expect that the program will begin to fade as the impact of the novelty of the rewards wanes over time, and as parents tire of their younger children's demands to go to McDonald's every time they buckle up, as well as their older children's complaints about not being equally rewarded.

Parents also anticipate that there will be no carryover effect, even in the short run. They expect that parents and children will use the seat purely for the trip to McDonald's and that, unless the child knows he/she will be rewarded each time, the child will not be willing to sit in the seat. Parents do not expect that this system will help to establish good permanent safety habits for either themselves or their children.

"That's going to last until they're off the McDonald's lot."

"Do you know how many parents would jump to get their kids in the car seats before they got to the drive-through?!"

"What about the other 29 days of the month [when we won't go to McDonald's]?"

"Do you know how many trips to McDonald's you have to make to keep them buckled in that seat?!"

Some of these parents even view the concept as implying parental irresponsibility. It suggests to parents that a merchandise reward and a child's safety are comparable. This comparison is viewed as ridiculous and insulting. Parents are appalled by the idea of gaining the motivation to provide for their children's safety through a pack of french fries. This concept implies that parents lack the motivation to put their children in CSSs, and that fries alone will provide sufficient motivation. Essentially, the concept misses the point that using a CSS can be a chore and a struggle which cannot be bought off with french fries.

"Who cares if we're eligible or not?"

"You care about not giving your child the best possible protection."

"This is ridiculous."

"This is excellent motivation for a child...but it's patronizing the parents."

"This is insulting...like safety and a prize are comparable!"

### 3. Improved child behavior as a reward

We attempted to make programmatic use of Christophersen's<sup>1</sup> findings on improved child behavior in CSSs by constructing a concept called "Behavior," which uses better car behavior as an incentive for parental insistence on CSS use. Christophersen's work suggests a more positive approach to supplement scare tactics in encouraging CSS use.

#### Behavior

It's a lot of trouble to use a child safety seat, and most drivers will never have the kind of accident where it is needed to save a child's life. Why bother with it then? Because it turns out that kids who ride in car seats behave better in the car than kids who don't. Infants like the feeling of being cradled and protected. For toddlers, sitting higher, closer to the window, seems to help them calm down and enjoy the ride, and it certainly stops them from climbing and standing. Your reward? A lot more peace of mind every time you travel with children in child safety seats. It's nice to know that your children are protected in case of an accident, but even if the accident never comes, a child safety seat makes riding with children easier and more pleasant for you and for them.

<sup>1</sup>Christophersen, E.R. "Children's Behavior During Automobile Rides: Do Car Seats Make a Difference?" Pediatrics 60, no. 7 (1977), pp. 69-74.

As the reader will recall, very few of these parents have never tried to use a CSS for their toddlers. CSS usage for toddlers is as low as it is mostly because parents give up in their struggle with their children, particularly when they feel that safety belts provide an almost as effective alternative. Consequently, it is not surprising that this concept is rejected. The consensus of these parents, speaking from their own experience, is that the assertions in the statement are patently false and that their children are better behaved out of their CSSs than in them.

"This says infants fuss less; that's not true because my infant fusses more. As soon as I put him in it, he screams the whole way...."

"I wouldn't believe this. None of it. It would be nice if it was this way, but it's not."

"It's not a lot more peace of mind, because you're worried about him getting out."

#### 4. Other rewards

Other rewards to parents are seen as incentives for short-term, rather than long-term, behavioral change.

During many of the groups, we orally introduced several other positive reinforcement concepts which were aimed at rewarding the parent CSS user rather than the compliant child. These concepts include reduced insurance rates; reverse, or credit, points on a driver's license if caught violating another traffic law; free gasoline; or coupons for food or entertainment for the family.

Although some react favorably to the ideas of positive points or reduced insurance rates, others agree that the rewards will probably affect few in the long run. They might put their child in a seat just for the trip to the gas station in order to qualify for free gallons of gasoline. Some parents state that, in truth, they would be more motivated to act if they were penalized rather than rewarded.

"Points against us would be more effective."

"Fine us. If I knew I would get a \$60 fine, I would go out and buy a car seat."

Once again, some balk at the notion of positive reinforcement.

For some parents, no matter what the reward, the whole concept of positive reinforcement is strongly rejected. Parents should not need any incentive either to provide for their children's safety or to follow a law.

"You do it because you want to do it."

"It's a law. You should just automatically have to do it."

#### F. Miscellaneous Concepts

We developed four somewhat specialized concepts to test some less obvious program directions, and all but one are rejected as being inconsistent with respondent life-styles, or otherwise unattractive.

##### 1. Second showers

The most successful of these miscellaneous concepts is one which provides encouragement for giving a "second shower" to women having a second or later child, to provide an opportunity to offer additional car seats as gifts as a way of addressing the displacement of a toddler by a new infant, when the existing convertible CSS would otherwise be recycled for the infant.

### Second Shower

Mary's second baby shower was much better than her first one. When her first child was born, Mary got a mix of essential items and items she never really used. The second time, however, she knew fewer people would be giving gifts and she wanted each one to be practical. Therefore, she let people know she needed a second child safety seat. She didn't want her older child to have to switch to using a safety belt just so the new infant could then use its sibling's convertible (infant/toddler) safety seat. On the other hand, she realized that a new child safety seat would cost more money than any individual gift giver could probably afford. So Mary did two things. She suggested that several gift givers pool their resources so the combined amount could pay for the safety seat. She also told people she preferred to pick out the seat herself, so she could be sure the seat would be convenient to use and fit in her car. Now, whenever Mary drives her children around, she remembers the thoughtful, caring way her family and friends gave her the second child safety seat she needed for her youngest child.

Parents agree that the concept speaks to an important need -- providing protection for children who typically lose their seats to their newborn siblings. At the same time, parents also believe that the approach to solving this problem suggested in the concept is unrealistic.

Mothers generally expect showers for their first child, but rarely for their second. The few second showers that are given, therefore, always seem to be unexpected surprises. Consequently, suggesting presents to their friends is virtually impossible on logistical grounds. Some mothers also assert that even if it were logistically possible, it would be unnatural for them to ask for the presents they actually want.

Parents suggest that a better approach which would speak to the same issue would be an ad directed to the gift givers which reminded them of the need for second showers and a second CSS.

## 2. Seat tryout centers

The concept of having a central, public location for trying out seats receives mixed reactions.

Several groups were orally presented with the notion of having a public facility for trying out various seats. Some parents welcome the idea, particularly since seats are often reported to be displayed so as to be visible, but inaccessible to shoppers. They would examine seats for both ease of use and installation, as well as with respect to their children's comfort. They seem to say this not because having this option might have prevented them from abandoning their seats, but because it might have made their lives more pleasant and perhaps saved them the cost of a new, more appropriate seat.

Other parents reject this concept with the argument that you can never tell what style seat and harness locking mechanism will work the best for you in the long run.

## 3. Building child commitment to the CSS

A short guide to parents intended to provide specific suggestions for giving a child a sense of "ownership" of, and commitment to, his or her car seat is rejected on the grounds that every child is different, making universal rules generally useless.

### Special Seat

We all know how important it is to keep a child in an approved child safety seat. But many of us who start off with our toddlers in safety seats find that we have difficulty keeping them there.

The key to keeping your child happy in his or her child safety seat is to make it the child's own special seat. Involve your child with the seat, and it becomes something of the child's, not something which you are making the child use.

How can you make a safety seat "special" for a child? Here are some ideas from pediatricians and child psychologists:

- Attach a favorite soft toy to the seat so that the child can play with it in the car.
- Make or place a terrycloth cover on the seat, using material with a design that shows the child's favorite scenes or objects.
- Give the seat a nickname, so that it comes to be seen as more like a friend.
- If a new baby is about to enter the family and you have a "convertible" child safety seat, let the infant use the older seat, and buy the older child a new seat; the older the child, the better he or she can participate in selecting the seat, and feel that it is a special possession.
- When you have purchased a safety seat for your toddler; spend some time with your child decorating and "personalizing" the seat; use stickers or ribbons or dots, and most of all, use your imagination!

Parents react to the specific suggestions with skepticism or boredom; they either doubt that the suggestions will be effective, or they have already tried these things on their own.

"That's all great, but that will only last for five minutes."

"A lot of these are ideas we have already tried."

In reaction to the concept of a booklet offering child-management tips, most parents seem to balk. They assert that all children are different and therefore each must be handled differently. Although never directly stated, it is almost as though these parents refuse the concept -- the booklet of advice -- out of a sense of pride; they do not want to be told how to manage their own children by someone else. Nevertheless, it is probable that many of them referred to Dr. Spock in the course of raising their children.

"Every kid is different."

"Every child is different, and every parent knows their child."

#### 4. Wellness

An attempt to position CSS use as a form of healthful, preventive behavior equivalent to the exercise and improved dietary habits characterizing many American households will most likely not affect its target audience, CSS nonusers, because they are generally not health-oriented.

#### Wellness

People these days are jogging, exercising and eating lighter, healthier foods. They're cutting down on foods with cholesterol and sugar and artificial additives, trying to prevent heart disease and cancer before they start. Driving smart is part of living smart...doing things today that will cut your chances of getting into trouble later. Buckling your child into an approved child safety seat helps prevent injury just as keeping an eye on the sugar he or she eats helps prevent tooth decay. These days, staying healthy means prevention -- at home and on the road.

In the few groups in which this concept was tested, it became clear that CSS nonusers do not identify with the message given since they are not part of the health-conscious crowd which is described. These parents do not jog or exercise as those in the "Wellness" concept do; hence, the point is moot for them, as it is clearly targeted to someone else.

"I don't jog."

"I don't exercise."

"This is the yuppie ad."

Even a current user hypothesizes that this message will be ineffective at reaching nonusers.

"My feeling is if somebody is not using a car seat for their child, then they're not into exercising, health foods, nutrition....If they were taking in all this media stuff about sugar and healthy foods and all that, they would also be taking in all the stuff about car seats."

Indeed, the group moderator informally observed that CSS nonusers seem much more likely to be smokers than are CSS users.

## G. Message Delivery Systems

### 1. Adult audiences

When asked how best to deliver these messages, the most common response is via television and radio ads. Other common suggestions include news stories about collisions involving children, and films and documentaries similar in style to The Last Prom. Trustworthy deliverers of the message include a wide assortment of people and types:

"A doctor who has seen the horror stories"

"Bill Cosby, or some wholesome person like that"

"Someone who has lost a child in an accident"

Bill Cosby is most frequently mentioned, perhaps because of his use of "family" material in some comedy routines, and/or his television role as a medical advisor to pregnant women.

One group of particularly creative mothers in New Jersey spontaneously offered a myriad of other suggestions for delivering the message. These include awarding a special bumper sticker to parents found using a CSS, and including the CSS messages as pamphlets in diaper boxes and on side panels, as is currently done for missing-child publicity on milk cartons.

## 2. Child audiences

Some parents also strongly suggest that a separate set of messages be designed which target the toddlers. These messages would be disseminated through schools and day-care centers, as well as television commercials and programs such as Sesame Street. There was general consensus that television messages during Saturday morning cartoon time by characters that kids idolize (G.I. Joe, Mr. T) would be particularly effective in communicating the message that it is not babyish to be in a CSS.

## VII. RECOMMENDATIONS

The data presented here suggest a number of recommended steps to increase CSS use among toddlers for NHTSA to take either on its own or in conjunction with other organizations. Since most of these activities are directly aimed at increasing CSS market penetration, it is certainly appropriate for those who benefit commercially from CSS use (i.e., manufacturers and retailers) to undertake some of the recommended actions. Recommendations are grouped into the following categories: Enforcement, Hardware Development and Testing, Program Information, Public Information, Promotional Messages, and Message and Program Targets. Generally, the earlier recommendations have implications for more people than the later ones, and the number affected may be a suitable basis for setting resource allocation priorities. Other than that, these research recommendations are not presented in a ranked or prioritized order.

### A. Enforcement

#### 1. Increase the perceived probability of incurring costs for CSS nonuse by stiffening penalties

Our discussions with users and nonusers of CSSs suggest that stiff economic penalties in excess of the \$10 to \$25 often currently levied are most likely to motivate CSS use. Such penalties are only feasible within the context of the legal structure. They might take the form of fines approaching the cost of a CSS (we tested, in the "Enforcement 2" concept, \$60 in several of the groups), or levying points on drivers' licenses in states which have such a system.<sup>1</sup> The latter penalty is usually interpreted as an economic penalty, since it is believed to trigger increases in insurance rates; the threat of license suspension because of accumulated points appears less determinative.

One possible research activity in this connection might be to compare the attitudes and behaviors of people who have been convicted of CSS law violations in jurisdictions with varying degrees of penalties. Public, police and court opinion could also be surveyed to identify their views concerning penalties and enforcement.

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<sup>1</sup>There was no clear consensus among the experts who reviewed this report about stiffer penalties for noncompliance with CSS laws. Several experts felt that cost-effective increases in compliance could be achieved by more frequent enforcement, using trained police and supportive court system officials. Most parents and other experts argued for higher fines, points on driver's license records, and linkages between convictions and insurance premium cost increases.

We need to recognize, however, that substantial increases in penalties and increased law enforcer attention to CSS use are probably not realistic expectations without a strong CSS constituency raising the issue. This has happened in the past few years with regard to drunk driving, and the activities of organizations like Mothers Against Drunk Driving (MADD) may serve as a model for the CSS community.<sup>1</sup> We tested the extent to which increased penalties would be supported by CSS users, and found considerable stated willingness to support petitions to legislative bodies for new laws.

## 2. Make increased penalties credible by strengthening enforcement efforts

Raising the economic stakes for nonuse will, however, prove ineffective if the perceived likelihood of getting ticketed remains low. If actual law enforcement activity cannot be increased, then the perception of law enforcement activity will need to be changed. It is in communicating and dramatizing existing activity that some of the publicity programs tested in the groups might have positive impacts. For example, while it is clear that publication of CSS offenders' names will have virtually no motivating power based on fear of embarrassment or shame, such a program might be useful in communicating that real people out there are having to pay fines because of their nonuse of CSSs.

## 3. Involve insurance companies in law enforcement efforts

Programming efforts in this area should also focus on insurance companies, who can perform two useful functions in this area. First, insurance companies should be encouraged to link CSS law enforcement to premium increases, even where fines provided for in state laws are derisory. This linkage will involve some sort of reporting mechanism to communicate CSS citations to insurers; states which require drivers to carry insurance cards could have officers record insurance company information on the citation,<sup>2</sup> or a later computer

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<sup>1</sup>However, reviewer Stephanie Tombrello points out that "there will never be a victim constituency for this issue. It is not like drunk driving, where victims can generate hate toward perpetrators."

<sup>2</sup>First Lieutenant Raymond D. Cotton of the Maryland State Police reviewed this report and comments, "This would be quite difficult if not impossible unless linked to other violations."

link between driver and insurer could be made. A second important function is publicizing premium increases as a result of CSS law violation. Either singly or, more likely, as a trade association, insurance companies have promotional resources unavailable to most of those in the CSS community.<sup>1</sup>

## B. Hardware Development and Testing of Occupant Restraints for Young Children

### 1. Undertake an independent assessment of the effect of seat design

It is easy to dismiss parental reports of child discomfort and ease in getting out of CSSs as reflecting parents' own feelings about the effort involved in using the seat or keeping a child in it when that child has other ideas. And, indeed, we do not accept these reports uncritically. Nevertheless, they surface frequently enough, even among committed CSS users, to suggest that seat design shortcomings need to be investigated. Taking the most pessimistic position, that many parents will not exert extra effort to keep their children in CSSs even though they have a commitment to the principle of child protection, then the ability of CSS design to facilitate or impede seat use may make a difference for a marginal or wavering user.

Such a program could take several forms, starting with convenience of installation and fit of the CSS in various car models. Research is also needed to determine compatibility between safety seats and newer passive belt systems (e.g., automatic safety belts) and rear seat three-point belt systems. A high priority should be given to naturalistic tests of car seats for accessibility of releases to children, and the ease with which older toddlers (particularly those reaching the limit of coverage by CSS laws) can manipulate the restraint device releases.

<sup>1</sup>Reviewer Stephanie Tombrello comments, "We have found that most insurers refuse...to pay to replace car seats after collisions [in which they saved a life or prevented injury]. I believe it would be unfair to report child safety violations to insurers unless the companies show more active interest in rewarding users in collisions. Also, law enforcement officers make errors occasionally on seats and so do judges; if a parent isn't well versed on child passenger safety, he or she may accept a conviction unfairly."

Ideally, the release mechanism should be easy for parents to use and difficult for children to use. However, any redesign of seat release mechanisms must also take into account parental fears about releasing children from CSSs in an emergency requiring immediate evacuation of the vehicle. While this concern may often be a rationalization of a decision not to use the seat, it is certainly appropriate not to design seats in such a way as to support the rationalization. Whether this can be done while still childproofing the seat is an open question at this point; certainly it is a reasonable design goal to stimulate the creativity of seat manufacturers. Alternatively, seats might be designed to permit fast removal of the seat with the child still in it, to allow faster evacuation than is possible if the child must first be removed from the car seat.

Seats can also be studied without exposing them to children, for example, for maximum size limitations for lightly clad and winter-bundled children, using percentile size charts of children at various ages; again, ages two and above are particularly critical. Finally, studies of how seats handle sun loads and perspiration should be conducted to determine problems with summertime comfort.

The resulting information could be directly publicized by the government, following the principle already established with NHTSA's National Crash Assessment Program (NCAP) and the Uniform Tire Quality Grading Standards (UTQGS), or it could be provided more quietly to seat manufacturers as a way of encouraging a more effective product. Dialogue between manufacturers and NHTSA, stimulated by these tests, may also point to aspects of FMVSS 213 (the federal standard governing child safety seat design) which may need review. Federal CSS regulations may be inhibiting the introduction of innovative design features by prescribing physical features rather than merely setting performance standards. Based on comments made about specific brand names and models, we would expect to see substantial differences across seats in comparative tests.

## 2. Determine the relative safety of child safety seats and safety belts

Virtually all of the CSS nonuse which we found involves behavior which would show up on an observational study as nonuse, but which parents consider to be safe and responsible behavior: the restraint of small children by a safety belt. Most typically, such children are restrained by a rear-seat lap belt, but many are in front-seat lap belts (sometimes

with considerable slack, since they do not use shoulder straps). Some of these children are as young as 18 months old.

What the quality of protection these children are getting is not clear. Parents rightly suspect that safety belts provide less protection (for some, much less protection) than CSSs, but argue that an inferior protection which is faithfully used is better than a superior protection which is resisted. When, in a few group discussions, the moderator suggested that safety belt use might be dangerous (e.g., abdominal damage from crash forces being concentrated in one area, pivoting around the belt to allow head contact with the dashboard), parental dismay was intense.<sup>1</sup>

NHSTA or some other organization should conduct research to determine what level of protection each system provides to children between the ages of two and four. Tests of neck and abdominal loadings for both restraint systems may require new test dummies representing children of various ages. The research should examine the potential of both CSSs and safety belts to inflict trauma on children of this age in sudden deceleration.

3. Establish objective criteria for when transition from safety seats to safety belts can take place

NHTSA or some other organization should conduct research to determine when the transfer to safety belts is most desirable from a safety viewpoint.<sup>2</sup>

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<sup>1</sup>In fact, some recent research suggests that rear-seat lap belts may cause injuries. It is detailed in: National Transportation Safety Board. Performance of Lap Belts in 26 Frontal Crashes. NTSB/SS-86/03, Washington, DC; July 28, 1986.

<sup>2</sup>Forrest Council of University of North Carolina reviewed this report and comments, "The design of seats should and does tend to make them safer than seat belts for any child who has not outgrown the CSS. Thus, there is no way of answering this 'safe' transfer question other than to keep them in the seat as long as possible."

In the absence of any generally understood standard for when a child can be taken out of a CSS and put into a safety belt, parents tend to look to state laws to define periods of use. Thus, the laws (which are not uniform from state to state) become not only a statement of conditions under which penalties will be levied, but a standard of safety; in one state, it is thus not only legal but safe and responsible to put a child in a safety belt on his or her third birthday, while in a neighboring state, such a shift is only legal and safe on the fourth birthday. It seems irresponsible to allow such decisions to depend on the vagaries of state law, particularly when so many users are committed to doing the right thing by their children. Widespread communication of safe periods for CSS use would help to encourage continued CSS use beyond law enforcement cutoff ages, should that be desirable. Failing such communications programs, state laws may displace real safety considerations and common sense as determiners of cessation of CSS use. This is particularly unfortunate since such laws tend to be based on the child's age, and not on height and weight that are more correlated with the limits of CSS effectiveness.

### C. CSS Inventory and Other Program Information

Generating basic quantitative information about CSS use would help to allocate programming resources more efficiently.

During the literature search which initiated this project, we were struck by how many very basic facts about CSS use and nonuse could be provided only impressionistically. These include:

- The percentage of households owning a booster seat or CSS, or the total number of seats in use
- Percentages of seats in use from loaner/rental programs, gifts, loans from friends or relatives, hand-downs from friends or relatives, purchased new, purchased used, acquired from others' discards, etc.
- Relationship between disposable income (or income per household member) and likelihood of CSS use
- Percentage of CSS users with occasional nonuse

- Extent to which nonuse is associated with former use and/or with current ownership or access to a CSS (i.e., do we face a usage or an acquisition problem, or are there definable consumer segments associated with each problem?)

- Extent to which CSS abandonment can be linked with particular seat characteristics (assuming accurate identification of make and model), by parents who formerly used them

- Impact of CSS laws on use (e.g., awareness, expected probability of being cited for a violation, perceived severity of penalty)

- Amount of public awareness of CSS loaner and advocacy organizations, and extent of awareness among leaders and professionals in relevant fields, such as health, social welfare and law enforcement.

- Media habits of nonusers and occasional users

One of the most valuable outcomes of such quantitative research would be the construction of a model of seat use which would provide an adjustment factor for CSS sales figures to allow for future estimates of seats in use. Information on seats in use and on intermittent use would also provide adjustment factors for transforming regularly performed trip-based observational studies (e.g., Goodell-Grivas) into person-based usage data. Also, sophisticated consumer choice modeling (such as conjoint measurement) could be used to explore the components of decisions to use or not to use.

It is difficult to think of any other traffic safety program of comparable seriousness in which program development proceeds with such lack of information about the most basic parameters.

#### D. Public Information Programs

##### 1. Make special efforts to communicate changes in existing CSS laws

Consumer familiarity with CSS laws is generally good as regards the main outlines, and spotty on details (e.g., primary versus secondary enforcement). However, there seems to be a significant lag between the time a law goes into effect and the time by which it is familiar to most parents. We were particularly struck by the relative unfamiliarity of many of our North Carolina respondents with a major tightening of the state CSS law, which had gone into effect more than three months earlier (although Forrest Council points to North Carolina Survey data showing that 69% of respondents knew the correct age cutoff and 72% knew the correct age that the child could be shifted to safety belts). Particularly intensive efforts to communicate the laws appear to be required whenever there is a change in coverage or penalties.

##### 2. Promote CSSs in novel ways

Consideration should be given to nontraditional dissemination methods to avoid the problem of public service announcements being run at off-hours, with low audience ratings. Several clever suggestions emerged from one unusually creative group of parents, including the use of packaging for products consumed by small children (e.g., one panel of a diaper box), and advertisements on supermarket shopping carts. Consideration should also be given to print media directed toward food shoppers, the so-called "checkout counter papers" typified by the National Enquirer, although these were not specifically discussed in the groups.

##### 3. Use caution in determining whether to publicize safety belt test results, since they may create a policy dilemma

An earlier recommendation proposed comparative testing of safety seats and safety belts in order to determine the amount of protection provided. The decision to publicize the results of the tests raises a question of policy. Although CSSs are known to be safer than belts for children of all ages, if safety belts do indeed provide protection almost

equivalent to CSSs for toddlers, then there is no policy dilemma. If, as seems likely, safety-belted children are receiving inferior protection, then it will be relatively easy to encourage parents not to use safety belts. The policy dilemma, however, is this: if safety belt use by toddlers is discouraged, it does not necessarily follow that CSS use will increase. The pursuit of the whole loaf of increased CSS use may endanger the current half loaf of safety belt use. The goal of child safety initiatives is to minimize the overall exposure of the young population to the risk of fatalities and injuries. At this time, the trade-off between two strategies -- belts versus CSSs -- is unclear. More parents are likely to belt their toddlers than to use child safety seats if public officials sanction or condone such choices. However, safety belts provide less protection than CSSs, so belted children are more exposed to risks.

We can offer no resolution to the dilemma, which must depend on an evaluation of the efficacy of safety belts for various age groups, but we feel compelled to point it out, since safety belt use appears to be so easily discouraged by communicating possible dangers. Programming in this area will be relatively easy and have a high likelihood of effectiveness. Whether such programming should be initiated, however, is a decision which needs thoughtful consideration.

#### 4. Publicize changes in seat design and differences in seat features and dimensions

We heard a number of parents -- users and nonusers alike -- comment on the improvements of today's CSSs over those available a decade or more ago. We suspect that much of the abandonment of CSSs involves those older seats, many of which are still circulating through hand-downs from friends and relatives, flea markets and garage sales.<sup>1</sup> Changes in seat design over the past decade, and the variety of seats now available in terms of size and features, make up-to-date knowledge about seats essential even for the parent who is committed to the concept of child passenger restraints. Publicizing the current state of the art in child safety

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<sup>1</sup>Such recycling underlines the folly of using CSS production or sales figures to estimate the number of households using seats at any point in time. For example, in a CSS user group conducted in an affluent suburb of Philadelphia, two respondents admitted to having obtained their safety seats from other people's discarded trash. As far as we are aware, such basic information as household penetration and child-to-seat ratios are simply not available for the nation.

seats would be a way to address the temptation to use an older hand-me-down seat instead of purchasing a new one, as would informing parents about the potential dangers of using older seats. The Los Angeles Area Child Passenger Safety Association, for example, tells parents that plastic begins to exhibit hairline cracks after five years, and to deteriorate after ten years.

A comparative guide to seat features would make the selection process easier. Even better would be a knowledgeable staffed site (perhaps a hospital or police station) with examples of all of the currently approved seats so that features, such as release mechanisms and seat material, could be checked and the fit of the seat to the child and/or the car could be assessed. Best of all would be a short-term "try it before you buy it" loaner program under which parents could sign out seats for up to a week in order to assess seat compatibility with the child for whom it is intended and the car(s) in which it will be used.

5. Assure the effectiveness of hospital safety seat programs and policies

Many parents report that prenatal education about CSSs, especially films, persuaded them to use CSSs. Others claim that hospital staff permitted them to leave the hospital with newborns held in their arms rather than in a CSS. Parents also say that hospital programs often pay little attention to fostering CSS use by toddlers. Because hospitals are so strategically well placed to provide authoritative information to parents of young children, it is important to assure that programs currently in place are being administered effectively and addressing all of the critical CSS issues. It is equally important to involve more hospitals in CSS programming, both in educating new mothers and in setting and enforcing policies to encourage CSS use.

6. Address parental fears about evacuating restrained children in emergencies

Although not a major cause of nonuse, parental concerns about releasing children from CSSs in an emergency, such as a car fire, may be worth addressing, if only to remove a potential rationalization for nonuse. The issue is emphasized in British promotional material on child restraints, with apparent success. It can be easily addressed by suggesting evacuation by disconnecting and removing the CSS containing the secured child, as an alternative to disconnecting the restraint devices and freeing the child from the car seat.

## E. Promotional Messages

### 1. Use promotional messages which address parent emotions in an unthreatening manner

Several of the concepts tested were built around message themes rather than specific programmatic activities. Of those concepts, two types were acknowledged as most likely to have an impact on CSS use, and any message-based strategy program should concentrate on them:

#### a. Emotionally grabbing but subtle "scare" messages

These are types of messages which arouse some level of concern over the potential negative consequences of not using a CSS, but which do this in such a way that the targeted consumer is not revolted or turned away by the message's execution. These messages thus avoid the more traditional "blood and gore" presentation of auto safety, of which the film The Last Prom is probably a classic example. Such messages evoke a strong, emotional reaction, which suggests that they have the ability to get past sensibilities calloused by exposure to years of more traditional messages about car safety. Equally important, they arouse no hostility.

#### b. Dramatic facts to "make you think"

These are messages which present arresting or provocative data intend to provide a new perspective on a familiar problem. They share with the subtle scare messages the ability to jolt people without directly threatening them.

### 2. Avoid accusatory message strategies

Several of the message themes which we tested attempt to arouse guilt either by directly suggesting that parents who do not use CSSs are showing a lower quality of love, or by attempting to link nonuse with negative imagery, such as that of child abuse, child neglect or drunken driving. While these message concepts certainly get the attention of participating parents, they also arouse considerable hostility, which vitiates whatever positive impact they might

have. Each of these messages in effect accuses the nonuser without acknowledging possible good intent on his or her part (recall that most CSS nonusers who safety-belt their toddlers are convinced of the need to protect children in cars, and believe that they are doing so). Such an accusation appears to arouse defenses against the accusation rather than a readiness to consider its possible truth. There is certainly some shock value in the guilt concepts which gets past the blase "bored with safety messages" attitude of many, but getting their attention and getting their commitment are two vastly different tasks. Nonusers are willing to be told that they are mistaken, but are not willing to be told that they are irresponsible.

The ability of some of these concepts to arouse strong emotional reactions suggests that if refined and redirected away from guilty parents and toward other intermediaries like family members and society at large, they might eventually bring about persuasive personalized pressures on some of the holdout populations.

#### F. Message and Program Targets

Resources should target messages and programs to several large target populations and a few less-obvious ones:

- Parents whose toddlers are not restrained at all and no seat is owned
- Parents whose toddlers are not restrained even though a seat is owned
- Parents who switch their toddlers to safety belts or booster seats before the toddler is physically unsuited for toddler seat use (perhaps for parent convenience or because of unduly permissive language in the state's CSS use law)
- Parents of infants who are unlikely to transition to toddler seats, either because they do not use (approved) infant seats, do not own convertible CSSs, perceive toddler seats as an undue cost burden, or do not realize the importance of occupant restraints for their would-be toddlers

This section focuses on some of the less-obvious target groups uncovered by the research.

1. Target households where there is risk of toddler displacement

One of the reasons for nonuse identified in this research is the displacement of toddlers from a CSS by the birth of a younger sibling, or by that sibling outgrowing an infant seat. Although there are no figures available on what proportion of CSS nonuse is attributable to displacement (and there should be), it was mentioned often enough in our group interviews for us to believe that it accounts for a nontrivial proportion of nonuse, particularly for older toddlers, and that it should be addressed by focused programming. Two programs which are likely to be particularly helpful are the encouragement of CSS gifts for second and later children, and the extension of loaner programs.

a. Gift givers and receivers

Ideally, a new CSS would be purchased for use by each new child in a household, unless children are spaced four or five years apart (although the useful life of a car seat is not known, and there is some evidence of deterioration after five years). There is little economic incentive for a household to purchase a second seat when the child currently using the CSS is approaching the limit of coverage of a state CSS law (or if parents are convinced that such laws will not be enforced with any vigor). Encouraging the purchase of a new CSS as a gift for the new child, however, appears promising as a way of getting more seats into circulation and thereby preventing displacement.

Theoretically, there is no reason why a new seat could not be purchased for the older child, with the convertible seat in current use being passed down to the infant. Indeed, there are some reasons to favor this course: the seat has already been used as an infant seat and is known to function well in that regard, while a new toddler seat might incorporate improvements in comfort and in its release mechanisms, since parents report that some newer seats are noticeably superior to those of a few years before. However, on balance, a program which encourages purchase of a new product for use over a limited period of time -- perhaps less than a year -- will meet more resistance than a program which encourages purchase of a new product which can be used over a longer time period.

Because a substantial proportion of those interviewed for this project received their CSSs as gifts, the seat seems to be established as a major baby gift item, and programming efforts should focus on potential gift givers, such as close relatives.

The baby shower is an already existing custom which provides an opportunity for such gift giving. Programming efforts devoted toward encouraging "second showers," with specific emphasis on why a CSS is not a "pass-down" item like a playpen or crib, would be helpful. Because parents are assumed to have all of the major equipment and much of the clothing needed for an additional child, showers for children after the first are relatively infrequent and often involve smaller gifts. Such a program seems particularly promising for parents whose financial circumstances make a CSS a major expenditure, since a shower permits the cost to be shared by several friends or relatives.

One of the attractive things about such a program is that its execution could involve organizations and media without a current strong identification with safety issues. In particular, baby magazines, women's magazines and organizations, such as women's clubs and women's organizations within churches or synagogues, could be enlisted to communicate the special needs of parents faced with second or later children. Programming materials generated by a central coordinating body might include sample speeches for presentation to organization meetings, "second shower" kits with decorations and gift ideas (prominently featuring CSSs), and sample articles for local newsletters, community weeklies and shopper papers.

Such organizations might usefully be involved in collecting and distributing outgrown seats to parents with a second or later child on the way, although some caution is needed because of the likelihood that older seats may be missing parts or instruction manuals.

b. Focused short-term loaner programs

An alternative to a second shower would acknowledge that the current toddler seat would be passed down to the new child, and would help parents to bridge the gap between the new child's use of the seat and the older child's need for it relative to considerations of safety or state law

compliance. Hospital-based loaner programs are in a particularly good position to provide this service, since they have access to the mother during childbirth.<sup>1</sup> While such programs appear to currently concentrate on the child about to be born, sensitizing program personnel to the displacement issue would encourage them to determine whether or not there are older children who will be asked to give up their CSS for the newcomer. For such situations, a small stock of toddler seats might be maintained for short-term "bridging" loans. Indeed, the limited loan periods likely for such seats would involve considerable turnover for a small stock of seats, thereby permitting the program to be added, with minimal additional capital investment, to primary loaner programs.

2. Address some CSS promotion directly at toddlers themselves

Some of the resistance to CSS use on the part of toddlers, particularly older toddlers, comes from their intense desire to be like grown-ups or older siblings, who not sit in special seats or boosters. A perception of the CSS as "babyish" is heightened by the presence of a younger sibling in an infant seat. Parents reacted positively to suggestions that children be directly addressed by CSS promotional activities with the message that the seats are not babyish, that they are the child's equivalent of what grown-ups do when they use safety belts. Since these children will be, for the most part, nonreaders, some audiovisual media will be required to disseminate such a message. Saturday morning cartoon shows are most frequently suggested, with parents claiming that they attract even very young children who may

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<sup>1</sup>However, it must also be recognized that loaner programs have several limiting constraints on their potential to increase CSS use. They can be expensive, especially to provide state-of-the-art, new-design CSSs; at best, loaner programs could probably serve only a small fraction of the needy population. Staff must have hands-on experience with a wide range of new and old seat models. Liability issues exist. Many programs have dealt with just infants and are not equipped or staffed to deal with toddlers or the transition to booster seats and safety belts.

not be able to follow the story line, but who can identify continuing characters and who are intrigued by the pace of the action and settings. Short public service announcements using cartoon characters like G.I. Joe or human characters which appeal to small children, such as Mr. T, would be good media for message execution.

### 3. Address grandparent and babysitter CSS resistance

Many CSS users report difficulties in persuading their own parents to use the CSS when carrying their grandchildren in their cars, while some nonusers point to grandparent nonuse as a factor in abandonment of CSS use. Neither situation appears sufficiently widespread to justify heavy programming expenditure, but some attention to grandparents would probably be helpful in reinforcing the messages which they are getting from their CSS user children. Perhaps periodic articles in publications directed toward older people (e.g., Modern Maturity or "Silver Pages" senior citizen discount books) would be appropriate; we would not recommend more intensive programming focused on this group.<sup>1</sup>

Users also occasionally complain about babysitter unfamiliarity with a CSS and/or unwillingness to use it. Ensuring that babysitter handbooks (put out by various organizations and commercial publishers), and driver education curricula provide information about the importance and proper use of CSS would be helpful, and require a relatively low investment of programming resources. More substantial investment in programming to this segment does not seem to be warranted given their relatively small role in the overall problem of CSS nonuse.

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<sup>1</sup>Reviewer Stephanie Tombrello comments, "I think this is an important issue...[which] will not be addressed by Modern Maturity stories but by educational materials for professional stressing sensitivity to this issue, and to involving grandparents in giving [CSSs as gifts, which would encourage grandparent use of his/her own gift]."

## VIII. CONCLUSION

In years to come, people concerned with motor vehicle safety will undoubtedly seek to learn more about specific population subgroups and the programs which will be most effective in increasing their use of occupant restraints. It is clear that mere enactment of state laws requiring mandatory use of child safety seats is a necessary but not a sufficient prerequisite for universal compliance.

Although parents appear to have significantly increased their use of restraints (especially for infants), there is still no evidence that all one- to four-year-olds are being restrained in the safest possible manner. Preliminary reviews of existing education efforts suggest that programmatic gaps exist for these older children. Optimistically, however, at least some parents who do not restrain their toddlers in safety seats are nonetheless restraining them with safety belts.

Nothing emerged from this research that isolates specific demographic characteristics of parents whose toddlers ride in safety seats until too old to fit into them. Rather, some parents have convictions or personality traits which allow them to stand firm on the use of toddler seats in the face of children's resistance and their own inconvenience.

Conversely, the project was unable in its literature search or its in-depth interview recruitment to uncover definite characteristics of parents who do not restrain their infants or toddlers. Instead, a diverse set of explanations for nonuse of restraints emerged from the interviews, some characteristic of particular population subgroups, others related to situational or personality factors. These explanations suggest a number of programmatic initiatives and educational approaches aimed at persuading these parents (and other populations) to overcome their resistance, deal with seat selection and purchase problems, and help them withstand the upsets of recalcitrant, protesting offspring.

No single initiative or approach is likely to be both necessary and sufficient to achieve the desired 100% level of compliance with state safety seat laws. Multiple efforts, some short-term and some long-term, seem essential. Furthermore, some efforts must be directed toward technical issues such as hardware improvements, improved crash

performance testing, comparisons between safety seats and safety belts, and similar matters. Cooperation among a broad spectrum of manufacturers, state and federal officials, enforcement agents, educators, community organizations and other safety and health institutions will be needed to achieve the common goal of maximum protection for young motor vehicle occupants.

APPENDIX A

TOPICAL OUTLINE FOR USER GROUPS

Background on HH

- Ages of kids
- # cars
- 2-4 doors

Household Division of Labor on:

- Child care
- Discipline (probe for style)
- Health care (probe for orientation)

Newcomer or old-time with CSSs?

- Use with other kids
- Vicarious experience of friends, relatives

What triggered acquisition?

- (If no spontaneous mention) Probe law, peer influence, doctor/hospital, loaner/rental, prior accident
- Who in household took lead on issue?
- Was there ever a time you resisted the idea?
  - . (If yes) How did you get over it?
- Ever a time you didn't have one, or didn't use it?
  - . (If yes) What changed?
- What benefits do you get from it? (probe behavior)

How acquired?

- How old was child?
- Much/little shopping; loan
- How did you know where to find them?
- Decision to buy convertible vs. infant
  - . (If infant) Transition plans, if any
  - . (If toddler) What happened to infant seat?
- (If bought) Any consideration of feeder seat, booster, etc.?
- Preferred features, suggested improvements; dislikes

Any problems setting up, using?

- Receive any training on seat? Instructions, labels, etc., adequate?
- Mom and Dad use patterns
- How used in multi-car households?
- How do kids react?
  - . (Toddler) Strategies for dealing with resistance
  - . (Infant) Expectation of resistance? Plans for dealing with it?

When do you not use it?

- (If no spontaneous mention) Probe multi-stop trips, car pooling, friend's car
- How fixed a habit is it? (Compare to playing with matches)

Familiarity with law

- Provisions, coverage, penalties
- Perceived level of enforcement
- Attitude toward enforcement (projective task)
- Seat belt use
  - . How do you explain belt/CSS use link?

Perception of non-users

- Why did you acquire, and not others?

(Toddler) What will cue you to stop using the seat?

What would you say, if you had the job of convincing others to use  
CSS?

- Would you say anything to a non-user?

Concepts, if time

APPENDIX B

TOPICAL OUTLINE FOR NONUSER GROUPS

Background on household

- Ages of kids
- # cars (2, 4 doors?)

Household Division of Labor on:

- Child care
- Discipline (probe for style)
- Health care (probe for orientation)

How do you drive with child?

- How does child behave in car?
- CSS substitutes used, if any (probe lap, basket) etc.)
- Ever own/use CSS? (If yes: Good or bad experience?) (If good, why stop?)

Decision not to use (vs. deferral of purchase)? Why?

- (If no spontaneous mention) Probe lack of awareness, lack of perceived need, active distrust, cost
- Where would you look for them if you wanted to buy them?
- Awareness of loaner/rental programs
- Who in household took lead on decision?
- Friend/relative CSS use patterns

Perceived effectiveness of CSS

- Any unanswered questions about it?

Familiarity with law

- Provisions, coverage, penalties
- Perceived level of enforcement
- Attitude toward enforcement (projective task)
- Seat belt use
  - . (If yes) Perceived disjuncture? Who prompted you to wear belts?

What could get you to change your mind?

- Changes to the seats themselves?
- Changes to your car?

Whose opinion on CSS would be worth listening to?

- Local (doctor, minister, police, mechanic, relative, etc.)
- National (ethnic, sports, religious leaders, stars, etc.)

Here are some things they might say (distribute concepts)

- Which seem most convincing?
- Which seem ridiculous?
- What would you say if you had the job of convincing others to use CSS?
- Effect of changes in law (points, higher fines, suspension on third offense, etc.)

APPENDIX C

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## APPENDIX D

### EXPERT TEAM MEMBER COMMENTS

Members of the team of experts were invited to submit comments for inclusion in this appendix. Each comment is preceded by the name and affiliation of the team members submitting it.

Dr. Ruth Montague  
Hampton University

The wording of the question for reviewers on the significance of research among low-income, minority, and "hard-core holdouts" appears somewhat biased against such research. That question had been phrased as follows:

At the time that we recruited participants, another research project was expected to examine toddler seat use by low-income households, including poor blacks and perhaps Hispanics. How likely do you think significant positive improvements could be achieved as a consequence of future research and program efforts for these groups? How would you suggest allocating existing scarce resources between the array of projects proposed by National Analysts and the array needed to study the hard-core holdouts against child safety seats? (9/30/86 letter from N.A.)

I strongly believe such research is necessary for the protection of children in these groups -- and of the adults involved in restraint use for the children and themselves. There seem to be two issues. In the short run, the marginal utility of research and program dollars will be greater when spent for the projects proposed by National Analysts. However, each such investment delays the work needed to understand and then plan and test interventions for the lowest-user groups. Motivational research and observational research are clearly needed for starters, just to bring the level of understanding close to what it is now for higher-user groups. Although such research will have slower payoff because of the present dearth of knowledge on these target groups, well designed and executed research can close the information gap fairly quickly and cost-efficiently, in my opinion.

Each study that puts these issues on the back burner makes it harder to justify expenditures in the next study because of the known information gap and concern about the marginal utility of dollar expenditures. That is, it becomes harder to justify the "significant positive improvements" criterion posited by National Analysts. Given my awareness of the literature and of cost-effective designs that could be used with the populations of interest to close the information gap, I would place this item of research as a second or third priority among the research topics proposed. That would involve a 20 to 25 percent budget commitment and inclusion in the FY 1987 or subsequent budget year.